

Exercise Book

Statement and Decision
Coverage for
the ISTQB Certified Tester
Foundation Level exam

600

exercises on the
ISTQB white-box
test design
techniques

by



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Introduction

This Exercise Book provides you with 600 exercises on white-box testing techniques which you may come across during your ISTQB Foundation Level exam. Questions refer to code coverage which is an analysis method that determines which parts of software have been executed (covered) by the test suite and which parts have not been executed. In this book statement coverage and decision coverage have been covered. Since for many functional testers testing pseudocode is not obvious enough, this book will help you understand how to answer questions related to code and pseudocode.

Chapter 1. Code and pseudocode

There are a number of ways in which code can be provided in exam question. It may be a piece of a real code.

PHP code example:

```
if ($t<"20")
{
    echo "Have a good day!";
}
else
{
    echo "Have a good night!";
}
```

which is translated in pseudocode as

```
IF ( )
{
    ;
}
ELSE
{
    ;
}
```

JAVA code example.

```
if(var%2 == 0)
    System.out.println("Have a good day");
else
    System.out.println("Have a good night")
```

which is translated in pseudocode as

```

IF ( )
{
    ;
}
ELSE
{
    ;
}

```

C++ code example. {lang="c++"}

```

if ( a <= 10 )
{
    cout << "Below 10" << '\n';
}
else
{
    if ( a < 60 )
    {
        cout << "Below 60" << '\n';
    }
}

```

which is translated in pseudocode as

```

IF ( )
{
    ;
}
ELSE
{
    IF
    {
        ;
    }
}

```

Despite the way code is provided, it should always be read and understood in the same way. It is a common practice that during an exam code is presented as pseudocode.

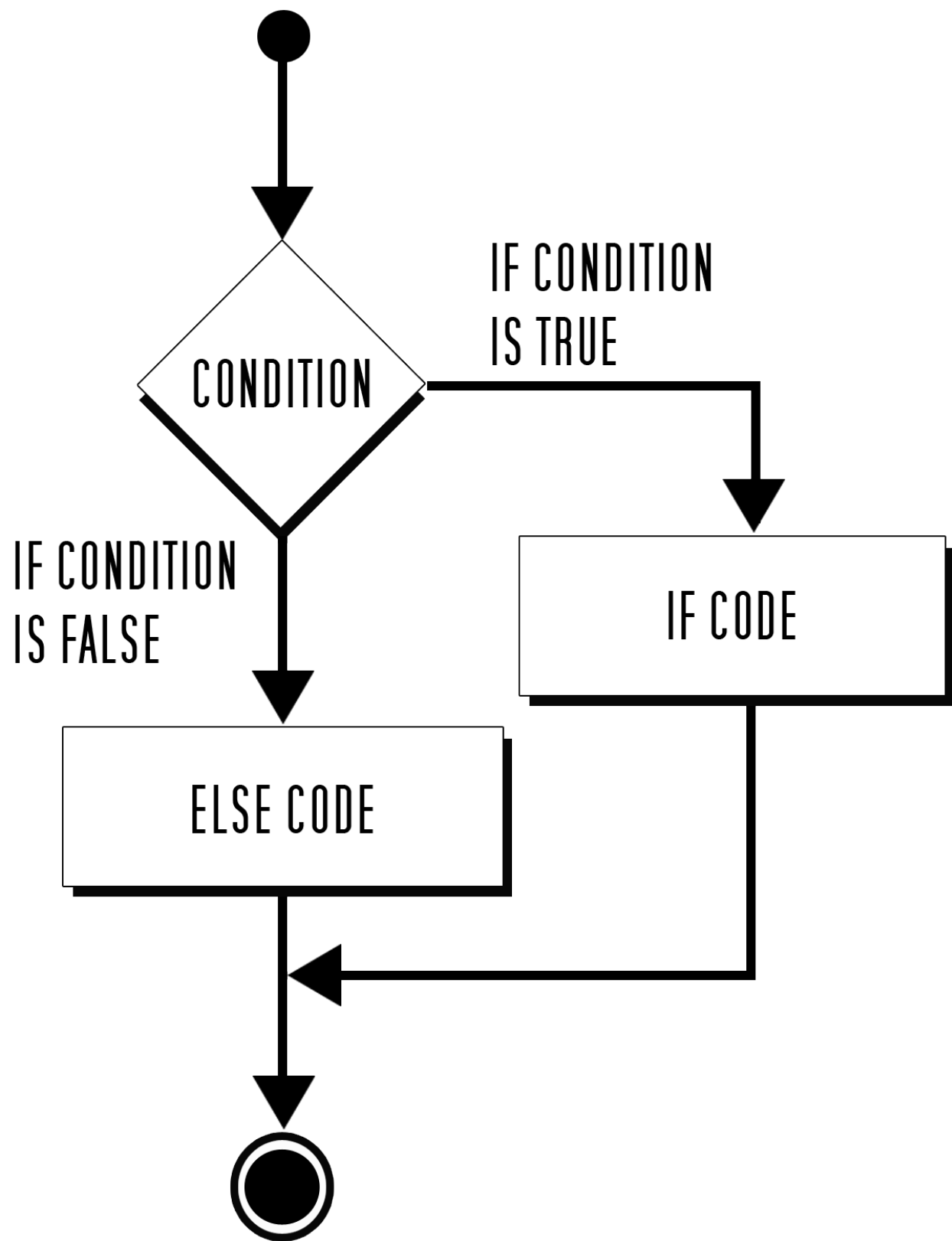
Pseudocode may be a simple text.

```
If
    card number is valid then perform transaction
In other case
    print information about failure
End
```

which is translated as

```
IF ( )
{
    ;
}
ELSE
{
    ;
}
```

There is also a possibility that pseudocode will be presented in the form of a graph.



Code as a graph

which is translated in pseudocode as

```

IF ( )
{
    ;
}
ELSE
{
    ;
}

```

Pseudocode can also be provided in a like-a-code way. Though it is not a real code, it looks like one.

```

IF
    THEN
ENDIF
IF
    THEN
ELSE
ENDIF

```

which is translated in pseudocode (used in this book) as

```

IF ( )
{
    ;
}
IF
{
    ;
}
ELSE
{
    ;
}

```

For a purpose of this book we will use one notation of pseudocode. However, during an exam one may also come across a notation written in a standard code.

Chapter 2. Statements

There are a number of statements that can be used in the ISTQB questions. The most common are:

- * Sequential code

- * IF

- * IF ELSE

- * SWITCH

- * WHILE (loop)

- * DO WHILE or UNTIL (loop)

- * FOR (loop)

Not only can pseudocode be presented in the form of a graph, but also code can possess its graphical representation. Code can be also presented as a graph so together with pseudocode also its graphical representation is shown.

Sequential code

Sequential code is a code in which there are no decision points, so the code is executed line by line.

Example of sequential code.

```
a = b + c
d = e * e
```

In order to cover all statements, you need 1 test case. Since there is no decision, the number of test cases needed for statement coverage will be the same as for decision coverage .

IF

IF statement means that decision must be taken. Decision TRUE means that some code will be executed while decision FALSE means that there will not be any code to execute. In order to cover statement, it is enough to exercise only TRUE decision. However, to cover decision you need to exercise both TRUE and FALSE decisions.

Example of IF code.

```
IF (wa)
{
    ev = ghd - pkq / cds;
}
```

In order to cover all statements, you need 1 test case. In order to cover all decisions, you need 2 test cases.

IF ELSE

IF ELSE statement means that decision in code must be taken. In this case both TRUE and FALSE decisions means that some code must be executed. To cover statements, it is mandatory to exercise both decisions. The same happens for decision testing.

Example of IF ELSE code.

```
IF (weu)
{
    i = o - f;
}
ELSE
{
    u = gkt * k;
}
```

In order to cover all statements, you need 2 test cases. In order to cover all decisions, you need 2 test cases.

SWITCH

SWITCH is used to take more decisions in the code. To cover all statements, you need to exercise all statements in CASES. In most of the cases number of test cases for statement and decision testing will be the same.

Example of SWITCH code.

```
SWITCH (yc)
{
    CASE 0:
        ep1 = o / c;
        break;
    CASE 1:
        p = wt * bd;
        break;
    CASE 2:
        fbt = xg + ana - cs;
        break;
    DEFAULT:
        qxn = q / ti;
        break;
}
```

In order to cover all statements, you need 4 test cases. In order to cover all decisions, you need 4 test cases.

While

WHILE is a loop which has to be executed as long as condition in the loop is TRUE. To leave a loop, you need to have a FALSE condition in the loop. If the loop is correctly built (which means it is not infinite and you can access loop), then only one test case is enough to cover all the statements and decisions.

Example of WHILE code.

```
a = 1;
WHILE (a < 5)
{
    b = c;
    a++;
}
```

In order to cover all statements, you need 1 test case. In order to cover all decisions, you need 1 test case.

DO WHILE or UNTIL

DO WHILE is another loop. If this loop is correctly built (as was explained above), only one test case is enough to cover all the statements and decisions.

Example of DO WHILE / UNTIL code.

```
DO{
    a = a + 1
} WHILE (a <= 0)
```

In order to cover all statements, you need 1 test case. In order to cover all decisions, you need 1 test case.

FOR

Another way of presenting a loop is the FOR statement. Also here it is enough to have one test case in order to cover all the statements and decisions. This statement, however, appears in exam questions somewhat rarely. Example of FOR code.

```
FOR (a = 5; a > -5; a--)
{
    b = c + 1;
}
```

In order to cover all statements, you need 1 test case. In order to cover all decisions, you need 1 test case.

Chapter 3. Statement coverage

”The Standard glossary of terms used in Software Testing” and “ISTQB Certified Tester. Foundation Level Syllabus” defines statement in several ways: * statement: an entity in a programming language, which is typically the smallest indivisible unit of execution.

* statement testing: a white box test design technique in which test cases are designed to execute statements.

* statement coverage: the percentage of executable statements that have been exercised by a test suite.

* executable statement: a statement which, when compiled, is translated into object code, and which will be executed procedurally when the program is running and may perform an action on data.

On the basis of the aforementioned definitions we may claim that statement coverage is the assessment of the percentage of those executed statements that were verified by test case suite. Statement testing produces test cases needed to execute statements in order to increase statement coverage.

Exercises

Exercise 1

How many test cases are needed for statement coverage of the following code?

```
IF (pi > 0)
{
    ln = pi + jyd / o;
}
ELSE
{
    ln = pi - zq;
}
```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage
- C. 5 for statement coverage
- D. 3 for statement coverage
- E. 1 for statement coverage

Exercise 2

How many test cases are needed for statement coverage of the following code?

```
mzd = -10;  
WHILE (pk || mzd < -2)  
{  
    ps = y / ap;  
    mzd++;  
}
```

Answers

- A. 5 for statement coverage
- B. 2 for statement coverage
- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 1 for statement coverage

Exercise 3

How many test cases are needed for statement coverage of the following code?

```
SWITCH (cxt)  
{  
    CASE 0:  
        tae = a1 * m / l;  
        break;  
    CASE 1:  
        zzw = cv + u;  
        break;  
    CASE 2:  
        ofv = j - sdy / v;  
        break;  
    DEFAULT:  
        h = tvw / s;  
        break;  
}
```

Answers

- A. 2 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 4

How many test cases are needed for statement coverage of the following code?

```
FOR (jly = 3; jly > -5; jly--)  
{  
    wa = tk - x + uip;  
}
```

Answers

- A. 2 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage
- D. 5 for statement coverage
- E. 3 for statement coverage

Exercise 5

How many test cases are needed for statement coverage of the following code?

```
IF (x)  
{  
    d = gyc - ld - z;  
}
```

Answers

- A. 1 for statement coverage
- B. 4 for statement coverage
- C. 2 for statement coverage
- D. 5 for statement coverage
- E. 3 for statement coverage

Exercise 6

How many test cases are needed for statement coverage of the following code?

```
n = spk - vy;
```

Answers

- A. 1 for statement coverage
- B. 5 for statement coverage
- C. 3 for statement coverage
- D. 6 for statement coverage
- E. 4 for statement coverage

Exercise 7

How many test cases are needed for statement coverage of the following code?

```
py = -5;
DO
{
    d = rt / a * kdz;
    py--;
}
WHILE (z || py > -8);
```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage
- C. 5 for statement coverage
- D. 1 for statement coverage
- E. 3 for statement coverage

Exercise 8

How many test cases are needed for statement coverage of the following code?

```
IF (j)
{
    j = j + ma;
}
```

Answers

- A. 3 for statement coverage
- B. 2 for statement coverage
- C. 1 for statement coverage
- D. 5 for statement coverage
- E. 4 for statement coverage

Exercise 9

How many test cases are needed for statement coverage of the following code?

```
u = 10;
DO
{
    i = b * e;
    u--;
}
WHILE (j || u > 6);

u = j / 10
```


Answers

- A. 1 for statement coverage
- B. 4 for statement coverage
- C. 5 for statement coverage
- D. 3 for statement coverage
- E. 2 for statement coverage

Exercise 10

How many test cases are needed for statement coverage of the following code?

```
q = g * q / p;
```

Answers

- A. 2 for statement coverage
- B. 5 for statement coverage
- C. 3 for statement coverage
- D. 4 for statement coverage
- E. 1 for statement coverage

Exercise 11

How many test cases are needed for statement coverage of the following code?

```
b = 10  
c = 175
```

```
FOR (ct = -8; ct < -1; ct++)  
{  
    a = b * c;  
}
```

Answers

- A. 4 for statement coverage
- B. 2 for statement coverage
- C. 1 for statement coverage
- D. 5 for statement coverage
- E. 3 for statement coverage

Exercise 12

How many test cases are needed for statement coverage of the following code?

```
IF (o = 1)
{
    d = o;
}
ELSE
{
    o = d;
}
```

Answers

- A. 5 for statement coverage
- B. 6 for statement coverage
- C. 2 for statement coverage
- D. 4 for statement coverage
- E. 3 for statement coverage

Exercise 13

How many test cases are needed for statement coverage of the following code?

```
READ bd;
READ o;

uua = -3;
WHILE (o || uua > -9)
{
    bd = o / bty - ebw;
    uua--;
}
```

Answers

- A. 5 for statement coverage
- B. 2 for statement coverage
- C. 4 for statement coverage
- D. 1 for statement coverage
- E. 3 for statement coverage

Exercise 14

How many test cases are needed for statement coverage of the following code?

```
a = a / (a + 1);
```

Answers

- A. 2 for statement coverage
- B. 5 for statement coverage

- C. 1 for statement coverage
- D. 4 for statement coverage
- E. 3 for statement coverage

Exercise 15

How many test cases are needed for statement coverage of the following code?

```
n = 5;
WHILE (m || n < 9)
{
    pi = b / t + 1;
    n++;
}
```

Answers

- A. 1 for statement coverage
- B. 2 for statement coverage
- C. 3 for statement coverage
- D. 4 for statement coverage
- E. 5 for statement coverage

Exercise 16

How many test cases are needed for statement coverage of the following code?

```
SWITCH (c)
{
    CASE 0:
        a = f - r;
        break;
    CASE 1:
        sq = a + q;
        break;
    DEFAULT:
        a = tvw / s;
        break;
}
```

Answers

- A. 5 for statement coverage
- B. 3 for statement coverage
- C. 4 for statement coverage
- D. 1 for statement coverage
- E. 2 for statement coverage

Exercise 17

How many test cases are needed for statement coverage of the following code?

```
c = 3,14;
```

Answers

- A. 2 for statement coverage
- B. 3 for statement coverage
- C. 0 for statement coverage
- D. 4 for statement coverage
- E. 1 for statement coverage

Exercise 18

How many test cases are needed for statement coverage of the following code?

```
IF (g == 100)
{
    g = kh / ay - jvy;
}
ELSE
{
    itg = e + oah - m;
}
```

Answers

- A. 5 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 2 for statement coverage

Exercise 19

How many test cases are needed for statement coverage of the following code?

```
at;
wi;
rnm;

at = 16;
WHILE (wi || at > 10)
{
    q = gwy * rnm / of;
    at--;
}
```

Answers

- A. 2 for statement coverage
- B. 3 for statement coverage
- C. 4 for statement coverage
- D. 5 for statement coverage
- E. 1 for statement coverage

Exercise 20

How many test cases are needed for statement coverage of the following code?

```
g = jh + b - f;  
f = jh + b;  
jh = b  
b = 1;
```

Answers

- A. 1 for statement coverage
- B. 5 for statement coverage
- C. 2 for statement coverage
- D. 3 for statement coverage
- E. 4 for statement coverage

Exercise 21

How many test cases are needed for statement coverage of the following code?

```
IF (oeu > 1)  
{  
    w = mn - u / oeu;  
}  
FOR (oeu = 6; oeu > 1; oeu--)  
{  
    od = a + aed - eph;  
}
```

Answers

- A. 3 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 5 for statement coverage
- E. 2 for statement coverage

Exercise 22

How many test cases are needed for statement coverage of the following code?

```
jun = kir / hfz;  
eul = -1;  
WHILE (jun || eul > -4)  
{  
    jun = kir + hfz;  
    eul--;  
}
```

Answers

- A. 4 for statement coverage
- B. 2 for statement coverage
- C. 1 for statement coverage
- D. 5 for statement coverage
- E. 3 for statement coverage

Exercise 23

How many test cases are needed for statement coverage of the following code?

```
FOR (faq = -1; faq > -10; faq--)  
{  
    t = mc * pm;  
}  
e = x / s - b;
```

Answers

- A. 4 for statement coverage
- B. 1 for statement coverage
- C. 2 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 24

How many test cases are needed for statement coverage of the following code?

```
FOR (t = 2; t > -6; t--)  
{  
    fp = j + c;  
}  
FOR (m = 4; m > -6; m--)  
{  
    d = u + yih / dz;  
}
```

Answers

- A. 1 for statement coverage
- B. 4 for statement coverage
- C. 5 for statement coverage
- D. 2 for statement coverage
- E. 3 for statement coverage

Exercise 25

How many test cases are needed for statement coverage of the following code?

```
up = -13;
WHILE (vte || up < -5)
{
    yhc = shq + tnv / m;
    up++;
}
FOR (es = -9; es < -5; es++)
{
    sz = cz / es;
}
```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 26

How many test cases are needed for statement coverage of the following code?

```
bm = -11;
DO
{
    ab = ac / ad;
    bm++;
}
WHILE (gy || bm < -6);
FOR (bm = 10; bm > 5; bm--)
{
    qw = rqg * oa;
}
```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage
- C. 5 for statement coverage
- D. 3 for statement coverage
- E. 1 for statement coverage

Exercise 27

How many test cases are needed for statement coverage of the following code?

```
osy = -4;
WHILE (osy < 4)
{
    u = o * vk;
    osy++;
}
IF (osy > 0)
{
    ltq = h - ge;
}
```

Answers

- A. 4 for statement coverage
- B. 1 for statement coverage
- C. 5 for statement coverage
- D. 2 for statement coverage
- E. 3 for statement coverage

Exercise 28

How many test cases are needed for statement coverage of the following code?

```
SWITCH (oit)
{
    CASE 0:
        rkf = o + dxy;
        break;
    CASE 1:
        va = ph / zyr - vb;
        break;
    CASE 2:
        itt = li + ryu;
        break;
    DEFAULT:
        i = uyp + w * q;
        break;
```



```

}
FOR (oit = -9; oit > -20; oit--)
{
    m = t - wbf;
}

```

Answers

- A. 2 for statement coverage
- B. 6 for statement coverage
- C. 5 for statement coverage
- D. 4 for statement coverage
- E. 3 for statement coverage

Exercise 29

How many test cases are needed for statement coverage of the following code?

```

SWITCH (se)
{
    CASE 0:
        e = z * nfv + kj;
        break;
    CASE 1:
        r = b * mu;
        break;
    DEFAULT:
        aem = cff + gt;
        break;
}
IF (ol)
{
    f = gz - ps / tjd;
}

```

Answers

- A. 2 for statement coverage
- B. 3 for statement coverage
- C. 5 for statement coverage
- D. 1 for statement coverage
- E. 4 for statement coverage

Exercise 30

How many test cases are needed for statement coverage of the following code?

```

nn = nn + mm;
nn = 6;
DO
{
    io = bt + ga + uch;
    nn--;
}
WHILE (uvb || nn > -2);

```

Answers

- A. 3 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage
- D. 5 for statement coverage
- E. 2 for statement coverage

Exercise 31

How many test cases are needed for statement coverage of the following code?

```

SWITCH (qsx)
{
    CASE 0:
        b = j / hj * w;
        break;
    CASE 1:
        qca = dc / qq;
        break;
    DEFAULT:
        cuk = z + bj;
        break;
}
xgr = -10;
DO
{
    qxs = yw * i;
    xgr++;
}
WHILE (s || xgr < -6);

```

Answers

- A. 5 for statement coverage
- B. 6 for statement coverage
- C. 3 for statement coverage

D. 4 for statement coverage

E. 7 for statement coverage

Exercise 32

How many test cases are needed for statement coverage of the following code?

```
fa = -10;
WHILE (dk || fa < -6)
{
    uj = b / so;
    fa++;
}
nja = 5;
WHILE (dk || nja < 9)
{
    uj = ft / xbh;
    nja++;
}
```

Answers

A. 4 for statement coverage

B. 1 for statement coverage

C. 2 for statement coverage

D. 3 for statement coverage

E. 5 for statement coverage

Exercise 33

How many test cases are needed for statement coverage of the following code?

```
ocq = 11;
WHILE (ba || ocq > 2)
{
    nc = egu + rjs / h;
    ocq--;
}
vq = -13;
DO
{
    hw = tlh + hb;
    vq++;
}
WHILE (gjx || vq < -1);
```

Answers

- A. 1 for statement coverage
- B. 5 for statement coverage
- C. 4 for statement coverage
- D. 2 for statement coverage
- E. 3 for statement coverage

Exercise 34

How many test cases are needed for statement coverage of the following code?

```
FOR (e = -1; e < 1; e++)
{
    sdt = 100 / q + fy;
}
sdt = -8;
WHILE (sba || sdt < -2)
{
    hgn = m / xn / ui;
    sdt++;
}
```

Answers

- A. 2 for statement coverage
- B. 3 for statement coverage
- C. 1 for statement coverage
- D. 4 for statement coverage
- E. 5 for statement coverage

Exercise 35

How many test cases are needed for statement coverage of the following code?

```
vc1 = 10;
DO
{
    ztj = pow * uuf / iug;
    vc1--;
}
WHILE (dka || vc1 > -1);
spj = -4;
WHILE (hvu || spj < 0)
{
    mab = il + rly + vun;
    spj++;
}
```

Answers

- A. 5 for statement coverage
- B. 4 for statement coverage
- C. 3 for statement coverage
- D. 1 for statement coverage
- E. 2 for statement coverage

Exercise 36

How many test cases are needed for statement coverage of the following code?

```
le = 18;
DO
{
    oka = p * nu + fn;
    le--;
}
WHILE (mh || le > 8);
le = le + 1;
```

Answers

- A. 3 for statement coverage
- B. 1 for statement coverage
- C. 2 for statement coverage
- D. 5 for statement coverage
- E. 4 for statement coverage

Exercise 37

How many test cases are needed for statement coverage of the following code?

```
jmj = 9;
DO
{
    qh = jmj * 3;
    jmj--;
}
WHILE (jx || jmj > 3);
qh = 3;
DO
{
    f = teo + y * dgi;
    qh++;
}
WHILE (h || qh < 6);
```

Answers

- A. 3 for statement coverage
- B. 5 for statement coverage
- C. 1 for statement coverage
- D. 2 for statement coverage
- E. 4 for statement coverage

Exercise 38

How many test cases are needed for statement coverage of the following code?

```
IF (h)
{
    h = h / 2;
}
go = h;
```

Answers

- A. 1 for statement coverage
- B. 4 for statement coverage
- C. 2 for statement coverage
- D. 5 for statement coverage
- E. 3 for statement coverage

Exercise 39

How many test cases are needed for statement coverage of the following code?

```
IF (1m)
{
    vc = 2;
}
ELSE
{
    vc = -2;
}
vc = -2;
DO
{
    dp = kkx + y + jg;
    vc++;
}
WHILE (bqb || vc < 2);
```

Answers

- A. 2 for statement coverage
- B. 5 for statement coverage
- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 1 for statement coverage

Exercise 40

How many test cases are needed for statement coverage of the following code?

```
a = to * to;
FOR (to = 9; to > 5; to--)
{
    zc = zd + zq;
}
```

Answers

- A. 1 for statement coverage
- B. 3 for statement coverage
- C. 5 for statement coverage
- D. 2 for statement coverage
- E. 4 for statement coverage

Exercise 41

How many test cases are needed for statement coverage of the following code?

```
IF (ysz)
{
    wt = 1;
}
ELSE
{
    wt = 0;
}
k = 13;
WHILE (wt = 1 || k > 5)
{
    oz = ku / t;
    k--;
}
```

Answers

- A. 2 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage

D. 5 for statement coverage

E. 3 for statement coverage

Exercise 42

How many test cases are needed for statement coverage of the following code?

```
s = -10;
DO
{
    k = fni - cw + b;
    s++;
}
WHILE (k = 1 || s < 0);
a = 11;
WHILE (k = 0 || a > 7)
{
    n = ya + hkh * te;
    a--;
}
```

Answers

A. 5 for statement coverage

B. 2 for statement coverage

C. 1 for statement coverage

D. 4 for statement coverage

E. 3 for statement coverage

Exercise 43

How many test cases are needed for statement coverage of the following code?

```
ew = 0;
DO
{
    ygt = p - bk / r;
    ew--;
}
WHILE (jja || ew > -4);
FOR (m1 = -6; m1 < 3; m1++)
{
    bo = f * c / qr;
}
```

Answers

- A. 5 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 2 for statement coverage
- E. 3 for statement coverage

Exercise 44

How many test cases are needed for statement coverage of the following code?

```
FOR (fce = 1; fce < 5; fce++)
{
    wp = w + r;
}
SWITCH (zs)
{
    CASE 0:
        dzx = luo - oqk - d;
        break;
    CASE 1:
        hzc = qh / dwv;
        break;
    CASE 2:
        lr = j / lv;
        break;
    DEFAULT:
        cw = yo - u;
        break;
}
```

Answers

- A. 4 for statement coverage
- B. 6 for statement coverage
- C. 3 for statement coverage
- D. 5 for statement coverage
- E. 2 for statement coverage

Exercise 45

How many test cases are needed for statement coverage of the following code?

```
FOR (jkn = 2; jkn < 7; jkn++)
{
    jfl = d / crr;
}
xx = -3;
DO
{
    x = rs + mdi;
    xx++;
}
WHILE (m || xx < 2);
```

Answers

- A. 2 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 46

How many test cases are needed for statement coverage of the following code?

```
IF (nr)
{
    z = a / who;
}
IF (nr)
{
    zgq = a / wno * hn;
}
ELSE
{
    wx = gb * vq / tk;
}
```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 47

How many test cases are needed for statement coverage of the following code?

```
IF (nn < 0)
{
    t = urh * u;
}
```

```
IF (nn < 10)
{
    t = urh * u;
}
```

Answers

- A. 3 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 48

How many test cases are needed for statement coverage of the following code?

```
g = -15;
WHILE (v > 0 || g < -9)
{
    c = re * ts + xr;
    g++;
}
IF (v < 0)
{
    j = o * tc + cjp;
}
```

Answers

- A. 1 for statement coverage
- B. 5 for statement coverage
- C. 4 for statement coverage
- D. 2 for statement coverage
- E. 3 for statement coverage

Exercise 49

How many test cases are needed for statement coverage of the following code?

```

IF (fn == 9)
{
    qk = zlt / ve;
}
fn = 9;
WHILE (b || fn > 6)
{
    qea = nmm + fqj;
    fn--;
}

```

Answers

- A. 4 for statement coverage
- B. 5 for statement coverage
- C. 1 for statement coverage
- D. 3 for statement coverage
- E. 2 for statement coverage

Exercise 50

How many test cases are needed for statement coverage of the following code?

```

IF (j = -1 || i = 1)
{
    d = i;
}
klk = -13;
DO
{
    fw = ozx - 1;
    klk++;
}
WHILE (kiu || klk < -4);

```

Answers

- A. 1 for statement coverage
- B. 4 for statement coverage
- C. 2 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 51

How many test cases are needed for statement coverage of the following code?

```

FOR (t = 9; t < 17; t++)
{
    a = gt - k - gb;
}
FOR (t = 9; t < 17; t++)
{
    b = gt - k - gb;
}
uih = q + oms - usp;

```

Answers

- A. 2 for statement coverage
- B. 5 for statement coverage
- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 1 for statement coverage

Exercise 52

How many test cases are needed for statement coverage of the following code?

```

IF (a > 0)
{
    w = a * 2;
}
IF (w < 0)
{
    y = h - a;
}
ELSE
{
    y = h + a;
}

```

Answers

- A. 5 for statement coverage
- B. 1 for statement coverage
- C. 2 for statement coverage
- D. 3 for statement coverage
- E. 4 for statement coverage

Exercise 53

How many test cases are needed for statement coverage of the following code?

```
SWITCH (qt)
{
    CASE 0:
        rqi = h / q;
        break;
    CASE 1:
        fsu = s * pmn / k;
        break;
    DEFAULT:
        sz = uv + y;
        break;
}
SWITCH (cen)
{
    CASE 0:
        rqi = lhq / pty;
        break;
    CASE 1:
        sz = ep - in / ezo;
        break;
    CASE 2:
        fsu = yua + hnb;
        break;
    DEFAULT:
        fsu = cu / be - pms;
        break;
}
```

Answers

- A. 5 for statement coverage
- B. 4 for statement coverage
- C. 8 for statement coverage
- D. 7 for statement coverage
- E. 6 for statement coverage

Exercise 54

How many test cases are needed for statement coverage of the following code?

```

izl = 1;
WHILE (su || izl > -5)
{
    iz = e * u * b;
    izl--;
}
FOR (ij = -5; ij > -15; ij--)
{
    uxu = t / o;
}

```

Answers

- A. 3 for statement coverage
- B. 5 for statement coverage
- C. 1 for statement coverage
- D. 2 for statement coverage
- E. 4 for statement coverage

Exercise 55

How many test cases are needed for statement coverage of the following code?

```

e = -1;
WHILE (dbd || e < 7)
{
    zvn = jt * xin - vxq;
    e++;
}
SWITCH (z)
{
    CASE 0:
        af = vv * fad - ep;
        break;
    CASE 1:
        ekm = m * em / ae;
        break;
    CASE 2:
        zaa = w * ma * xh;
        break;
    DEFAULT:
        mn = io + za;
        break;
}

```

Answers

- A. 8 for statement coverage
- B. 7 for statement coverage
- C. 6 for statement coverage
- D. 4 for statement coverage
- E. 5 for statement coverage

Exercise 56

How many test cases are needed for statement coverage of the following code?

```
ss = 10;
WHILE (h || ss > 7)
{
    z = ts * yx / wxq;
    ss--;
}
eci = -10;
DO
{
    jj = lk * r;
    eci++;
}
WHILE (i || eci < -6);
```

Answers

- A. 3 for statement coverage
- B. 1 for statement coverage
- C. 2 for statement coverage
- D. 4 for statement coverage
- E. 5 for statement coverage

Exercise 57

How many test cases are needed for statement coverage of the following code?

```
IF (z)
{
    gg = uw - r;
}
ELSE
{
    gg = hcq + am - p;
}
FOR (s = -2; s > -7; s--)
{
    gg = ky / fju;
}
```


Answers

- A. 6 for statement coverage
- B. 3 for statement coverage
- C. 4 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 58

How many test cases are needed for statement coverage of the following code?

```
wvx = txq / j;  
FOR (oth = 5; oth > -4; oth--)  
{  
    u = td * fa;  
}  
IF (u > td)  
{  
    gg = uw - r;  
}
```

Answers

- A. 5 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 3 for statement coverage
- E. 2 for statement coverage

Exercise 59

How many test cases are needed for statement coverage of the following code?

```
IF (c)  
{  
    vgt = bt - swa;  
}  
ELSE  
{  
    sf = vl * s;  
}  
tab = f + r;  
IF (tb)  
{  
    vgt = bt + swa;  
}
```

Answers

- A. 4 for statement coverage
- B. 3 for statement coverage
- C. 1 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 60

How many test cases are needed for statement coverage of the following code?

```
ev = -16;
DO
{
    pr = tif + e;
    ev++;
}
WHILE (re || ev < -4);
DO
{
    pr = tif + e;
    ev++;
}
WHILE (re || ev < 0);
qud = rrl - k + ebc;
```

Answers

- A. 4 for statement coverage
- B. 1 for statement coverage
- C. 3 for statement coverage
- D. 5 for statement coverage
- E. 2 for statement coverage

Exercise 61

How many test cases are needed for statement coverage of the following code?

```
e = 11;
m = e / 11;
c = m + e * 11
```

Answers

- A. 2 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage

D. 3 for statement coverage

E. 5 for statement coverage

Exercise 62

How many test cases are needed for statement coverage of the following code?

```
IF (y > 0)
{
    FOR (y = 6; y < 9; y++)
    {
        sa = a1 / smd * m;
    }
}
```

Answers

A. 5 for statement coverage

B. 4 for statement coverage

C. 1 for statement coverage

D. 2 for statement coverage

E. 3 for statement coverage

Exercise 63

How many test cases are needed for statement coverage of the following code?

```
IF (x > 0)
{
    IF (x == 1)
    {
        sa = a1 / smd * m;
    }
}
```

Answers

A. 2 for statement coverage

B. 3 for statement coverage

C. 1 for statement coverage

D. 4 for statement coverage

E. 5 for statement coverage

Exercise 64

How many test cases are needed for statement coverage of the following code?

```

j = 10;
WHILE (1e || j > 6)
{
    SWITCH (ai)
    {
        CASE 0:
            e = m + fr;
            break;
        CASE 1:
            ik = vzx - vu / xm;
            break;
        DEFAULT 2:
            qvi = vli + d / lc;
            break;
    }
    j--;
}

```

Answers

- A. 6 for statement coverage
- B. 5 for statement coverage
- C. 3 for statement coverage
- D. 2 for statement coverage
- E. 4 for statement coverage

Exercise 65

How many test cases are needed for statement coverage of the following code?

```

SWITCH (as)
{
    CASE 0:
        FOR (gy = 2; gy > -2; gy--)
        {
            iq = rf / ed;
        }
        break;
    CASE 1:
        IF (i)
        {
            yct = bp / uh;
        }
        ELSE
        {
            c = kf * h / pj;
        }
}

```

```

break;
DEFAULT:
  xg = 11;
  WHILE (uzo || xg > 0)
  {
    qi = b / nr - w;
    xg--;
  }
break;
}

```

Answers

- A. 3 for statement coverage
- B. 5 for statement coverage
- C. 6 for statement coverage
- D. 7 for statement coverage
- E. 4 for statement coverage

Exercise 66

How many test cases are needed for statement coverage of the following code?

```

IF (tw)
{
  IF (wt)
  {
    fa = n - uds / cab;
  }
}

```

Answers

- A. 5 for statement coverage
- B. 4 for statement coverage
- C. 3 for statement coverage
- D. 2 for statement coverage
- E. 1 for statement coverage

Exercise 67

How many test cases are needed for statement coverage of the following code?

```
dh = qdi * cp - dz;
```

Answers

- A. 2 for statement coverage
- B. 3 for statement coverage

- C. 5 for statement coverage
- D. 4 for statement coverage
- E. 1 for statement coverage

Exercise 68

How many test cases are needed for statement coverage of the following code?

```
IF (taw)
{
    IF (wta)
    {
        IF (awt)
        {
            fa = n - uds / cab;
        }
    }
}
```

Answers

- A. 3 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 69

How many test cases are needed for statement coverage of the following code?

```
IF (shw)
{
    SWITCH (ejr)
    {
        CASE 0:
            zkf = s + b * zy;
            break;
        DEFAULT 1:
            oj = m * ctk - t;
            break;
    }
}
```

Answers

- A. 5 for statement coverage
- B. 1 for statement coverage

- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 2 for statement coverage

Exercise 70

How many test cases are needed for statement coverage of the following code?

```
FOR (wdb = 7; wdb < 18; wdb++)  
{  
    FOR (ll = -9; ll > -15; ll--)  
    {  
        use = tq / dn;  
    }  
}
```

Answers

- A. 5 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 3 for statement coverage
- E. 2 for statement coverage

Exercise 71

How many test cases are needed for statement coverage of the following code?

```
ztg = -11;  
WHILE (ek || ztg < 1)  
{  
    gbt = 9;  
    WHILE (sum || gbt > 1)  
    {  
        s = pg / vo - jt;  
        gbt--;  
    }  
    ztg++;  
}
```

Answers

- A. 3 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 72

How many test cases are needed for statement coverage of the following code?

```
FOR (wib = 8; wib > 4; wib--)  
{  
    IF (wib == 6)  
    {  
        oek = 1 - d * bo;  
    }  
}
```

Answers

- A. 3 for statement coverage
- B. 2 for statement coverage
- C. 5 for statement coverage
- D. 1 for statement coverage
- E. 4 for statement coverage

Exercise 73

How many test cases are needed for statement coverage of the following code?

```
IF (cbb > 0)  
{  
    cbb = -8;  
    WHILE (wke || cbb < 2)  
    {  
        pq = fgc / dls;  
        cbb++;  
    }  
}
```

Answers

- A. 3 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 74

How many test cases are needed for statement coverage of the following code?


```

IF (mds)
{
  FOR (c = 1; c > -8; c--)
  {
    vse = o * wo + vk;
  }
}
ELSE
{
  p = 14;
  DO
  {
    hh = e * n;
    p--;
  }
  WHILE (ijd || p > 4);
}

```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage
- C. 3 for statement coverage
- D. 1 for statement coverage
- E. 5 for statement coverage

Exercise 75

How many test cases are needed for statement coverage of the following code?

```
ho = mcf / q;
```

Answers

- A. 1 for statement coverage
- B. 3 for statement coverage
- C. 2 for statement coverage
- D. 4 for statement coverage
- E. 5 for statement coverage

Exercise 76

How many test cases are needed for statement coverage of the following code?

```

dwn = 7;
DO
{
    br = -1;
    DO
    {
        ji = gij / tmx;
        br--;
    }
    WHILE (vc || br > -7);
    dwn--;
}
WHILE (ttw || dwn > 1);

```

Answers

- A. 5 for statement coverage
- B. 3 for statement coverage
- C. 2 for statement coverage
- D. 4 for statement coverage
- E. 1 for statement coverage

Exercise 77

How many test cases are needed for statement coverage of the following code?

```

IF (x)
{
    IF (z)
    {
        od = q / kzb;
    }
    ELSE
    {
        p = wg + su;
    }
}
ELSE
{
    IF (lh)
    {
        or = fg * j / jei;
    }
    ELSE
    {
        g = tqu * uq / f;
    }
}

```

```

    }
}

```

Answers

- A. 2 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage
- D. 6 for statement coverage
- E. 0 for statement coverage

Exercise 78

How many test cases are needed for statement coverage of the following code?

```

IF (j > 0)
{
    IF (i > 0)
    {
        vai = j * bd / nvq;
    }
}

```

Answers

- A. 2 for statement coverage
- B. 3 for statement coverage
- C. 1 for statement coverage
- D. 4 for statement coverage
- E. 5 for statement coverage

Exercise 79

How many test cases are needed for statement coverage of the following code?

```

IF (kxb)
{
    ki = -5;
    DO
    {
        vk = exv + td;
        ki++;
    }
    WHILE (xx || ki < 6);
}
ELSE
{
    ehn = 5;
}

```

```
WHILE (dk || ehv < 8)
{
    pvu = yj - m;
    ehv++;
}
}
```

Answers

- A. 3 for statement coverage
- B. 4 for statement coverage
- C. 5 for statement coverage
- D. 1 for statement coverage
- E. 2 for statement coverage

Exercise 80

How many test cases are needed for statement coverage of the following code?

```
uao = -9;
DO
{
    IF (uao > -5 )
    {
        lbu = cho * lhg;
    }
    ELSE
    {
        ovr = tpo - m;
    }
    uao++;
}
WHILE (pfj || uao < -1);
```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 81

How many test cases are needed for statement coverage of the following code?

```
sx = 17;
WHILE (ndh || sx > 9)
{
    i = -3;
    WHILE (sx > 0 || i < 6)
    {
        hgx = ya * r;
        i++;
    }
    sx--;
}
```

Answers

- A. 4 for statement coverage
- B. 3 for statement coverage
- C. 1 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 82

How many test cases are needed for statement coverage of the following code?

```
IF (i11 < 0)
{
    lol = 1;
    IF (i11 < -1)
    {
        all = lol - i11;
    }
}
```

Answers

- A. 5 for statement coverage
- B. 4 for statement coverage
- C. 2 for statement coverage
- D. 3 for statement coverage
- E. 1 for statement coverage

Exercise 83

How many test cases are needed for statement coverage of the following code?

```
IF (a == 1)
{
    IF (b == 1)
    {
        h = idc + pyd + c;
    }
}
```

Answers

- A. 1 for statement coverage
- B. 2 for statement coverage
- C. 4 for statement coverage
- D. 5 for statement coverage
- E. 3 for statement coverage

Exercise 84

How many test cases are needed for statement coverage of the following code?

```
IF (1)
{
    SWITCH (on1)
    {
        CASE 0:
            wmq = hdt - x;
            break;
        CASE 1:
            mnt = ky * f;
            break;
        DEFAULT:
            gvy = rm / bwz + dkh;
            break;
    }
}
```

Answers

- A. 4 for statement coverage
- B. 3 for statement coverage
- C. 5 for statement coverage
- D. 2 for statement coverage
- E. 1 for statement coverage

Exercise 85

How many test cases are needed for statement coverage of the following code?

```

SWITCH (lhv)
{
    CASE 0:
        co = 13;
        DO
        {
            s = w - mh;
            co--;
        }
        WHILE (ile || co > 9);
        break;
    CASE 1:
        g = b + txk;
        break;
    DEFAULT:
        FOR (ae = -6; ae < -2; ae++)
        {
            j = my / xp - ada;
        }
        break;
}

```

Answers

- A. 2 for statement coverage
- B. 1 for statement coverage
- C. 5 for statement coverage
- D. 4 for statement coverage
- E. 3 for statement coverage

Exercise 86

How many test cases are needed for statement coverage of the following code?

```

v = -6;
DO
{
    vdw = -18;
    DO
    {
        isd = f * csp * qy;
        vdw++;
    }
    WHILE (ep || vdw < -9);
    v++;
}
WHILE (c || v < -3);

```

Answers

- A. 4 for statement coverage
- B. 1 for statement coverage
- C. 3 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 87

How many test cases are needed for statement coverage of the following code?

```
dp = 2;
WHILE (ry || dp > -6)
{
    esp = 5;
    WHILE (th || esp > -2)
    {
        qu = sfk * x + kxo;
        esp--;
    }
    dp--;
}
```

Answers

- A. 5 for statement coverage
- B. 2 for statement coverage
- C. 4 for statement coverage
- D. 1 for statement coverage
- E. 3 for statement coverage

Exercise 88

How many test cases are needed for statement coverage of the following code?

```
u = -6;
DO
{
    FOR (q = -1; q > -8; q--)
    {
        xm = qr - rit - psi;
    }
    u++;
}
WHILE (z || u < 2);
```

Answers

- A. 2 for statement coverage
- B. 3 for statement coverage
- C. 1 for statement coverage
- D. 4 for statement coverage
- E. 5 for statement coverage

Exercise 89

How many test cases are needed for statement coverage of the following code?

```
gp = 5;
WHILE (nhy || gp > 1)
{
    wx = 17;
    WHILE (alm || wx > 5)
    {
        u = s * a;
        wx--;
    }
    gp--;
}
```

Answers

- A. 1 for statement coverage
- B. 5 for statement coverage
- C. 2 for statement coverage
- D. 3 for statement coverage
- E. 4 for statement coverage

Exercise 90

How many test cases are needed for statement coverage of the following code?

```
ahk = 10;
WHILE (wo || ahk > 2)
{
    h = pqz - zy;
    ahk--;
}
```

Answers

- A. 1 for statement coverage
- B. 2 for statement coverage
- C. 3 for statement coverage
- D. 5 for statement coverage
- E. 4 for statement coverage

Exercise 91

How many test cases are needed for statement coverage of the following code?

```

IF (mq)
{
    hmv = 1;
    WHILE (rxr || hmv > -4)
    {
        sxb = ehp + bkt;
        hmv--;
    }
}
ELSE
{
    IF (jx)
    {
        fm = xpt / 1;
    }
}

```

Answers

- A. 1 for statement coverage
- B. 4 for statement coverage
- C. 3 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 92

How many test cases are needed for statement coverage of the following code?

```

k = -13;
DO
{
    wam = -12;
    WHILE (1 || wam < -3)
    {
        o = n * r / s;
        wam++;
    }
    k++;
}
WHILE (zq || k < -5);

```

Answers

- A. 3 for statement coverage
- B. 5 for statement coverage
- C. 1 for statement coverage
- D. 4 for statement coverage
- E. 2 for statement coverage

Exercise 93

How many test cases are needed for statement coverage of the following code?

```
IF (1)
{
    f = -12;
    WHILE (mdn || f < -4)
    {
        se = sc + gk;
        f++;
    }
}
ELSE
{
    f = -12;
}
```

Answers

- A. 1 for statement coverage
- B. 3 for statement coverage
- C. 2 for statement coverage
- D. 5 for statement coverage
- E. 4 for statement coverage

Exercise 94

How many test cases are needed for statement coverage of the following code?

```
IF (1)
{
    f = -12;
    WHILE (mdn || f < -4)
    {
        se = sc + gk;
        f++;
    }
}
ELSE
{
```

```

        f = -12;
    }
    FOR (oa = -7; oa < -3; oa++)
    {
        ruv = n + wyw - c;
    }

```

Answers

- A. 3 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 95

How many test cases are needed for statement coverage of the following code?

```

IF (skh)
{
    FOR (fys = 6; fys < 8; fys++)
    {
        jbu = o + cb;
    }
}
ELSE
{
    SWITCH (nv)
    {
        CASE 0:
            w = yex / hbd + dn;
            break;
        DEFAULT:
            crm = rtu / p;
            break;
    }
}

```

Answers

- A. 6 for statement coverage
- B. 5 for statement coverage
- C. 3 for statement coverage
- D. 2 for statement coverage
- E. 4 for statement coverage

Exercise 96

How many test cases are needed for statement coverage of the following code?

```

sq = 6;
DO
{
    SWITCH (s)
    {
        CASE 0:
            my = khy + qjv;
            break;
        CASE 1:
            oi = kv - kq * fy;
            break;
        DEFAULT:
            r = ig / p;
            break;
    }
    sq--;
}
WHILE (d || sq > -1);

```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 97

How many test cases are needed for statement coverage of the following code?

```

wh = 11;
DO
{
    FOR (mr = 6; mr < 8; mr++)
    {
        sf = zd / vx;
    }
    wh--;
}
WHILE (xcf || wh > 5);

```

Answers

- A. 4 for statement coverage
- B. 5 for statement coverage
- C. 3 for statement coverage

D. 1 for statement coverage

E. 2 for statement coverage

Exercise 98

How many test cases are needed for statement coverage of the following code?

```
SWITCH (u)
{
    CASE 0:
        IF (mt)
        {
            yh = puj / vwd / c;
        }
        break;
    DEFAULT:
        lq = 17;
        DO
        {
            rrb = h + k - kl;
            lq--;
        }
        WHILE (ufy || lq > 8);
        break;
}
```

Answers

A. 6 for statement coverage

B. 3 for statement coverage

C. 2 for statement coverage

D. 4 for statement coverage

E. 5 for statement coverage

Exercise 99

How many test cases are needed for statement coverage of the following code?

```
c = 5;
WHILE (vaa || c > 0)
{
    FOR (p = -4; p < 4; p++)
    {
        ie = ey - wg / ig;
    }
    c--;
}
```

Answers

- A. 4 for statement coverage
- B. 2 for statement coverage
- C. 1 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 100

How many test cases are needed for statement coverage of the following code?

```
FOR (kkn = 10; kkn > 7; kkn--)
{
    tcf = 11;
    DO
    {
        r = i - n / mr;
        tcf--;
    }
    WHILE (w || tcf > 1);
}
```

Answers

- A. 5 for statement coverage
- B. 4 for statement coverage
- C. 2 for statement coverage
- D. 1 for statement coverage
- E. 3 for statement coverage

Exercise 101

How many test cases are needed for statement coverage of the following code?

```
IF (xd1)
{
    SWITCH (q)
    {
        CASE 0:
            bdc = ul - c;
            break;
        CASE 1:
            r = g + nei;
            break;
        CASE 2:
            kkx = 11;
            break;
    }
}
```

```

    DEFAULT:
        c1 = -11;
        break;
    }
}
WHILE (xp > 0 || c1 < -3)
{
    qrp = u * nw - ejn;
    c1++;
}

```

Answers

- A. 3 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 102

How many test cases are needed for statement coverage of the following code?

```

d = oib * o + w;
m = -12;
DO
{
    sk = 6;
    WHILE (ssy || sk > -4)
    {
        txu = qsr + ps + lx;
        sk--;
    }
    m++;
}
WHILE (z1 || m < -8);

```

Answers

- A. 5 for statement coverage
- B. 2 for statement coverage
- C. 3 for statement coverage
- D. 4 for statement coverage
- E. 1 for statement coverage

Exercise 103

How many test cases are needed for statement coverage of the following code?


```

r = 14;
WHILE (unp || r > 8)
{
    yz = -13;
    DO
    {
        wh = h - wcs - v;
        yz++;
    }
    WHILE (j || yz < -5);
    r--;
}
ek = 18;
WHILE (yqt || ek > 6)
{
    IF (ek > 6)
    {
        f = epy / qnh;
    }
    ek--;
}

```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage
- C. 5 for statement coverage
- D. 1 for statement coverage
- E. 3 for statement coverage

Exercise 104

How many test cases are needed for statement coverage of the following code?

```

aae = 11;
WHILE (aa || aae > 0)
{
    IF (aae > 10)
    {
        agx = y * kp / k;
    }
    ELSE
    {
        ji = m / a + f;
    }
    aae--;
}

```

```

FOR (svn = 6; svn < 9; svn++)
{
    sit = -4;
    DO
    {
        ph = ce - hqf;
        sit++;
    }
    WHILE (h || sit < 1);
}

```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 5 for statement coverage
- E. 3 for statement coverage

Exercise 105

How many test cases are needed for statement coverage of the following code?

```

a = -4;
DO
{
    iy = -1;
    WHILE (g || iy > -7)
    {
        re = nqq / pqs;
        iy--;
    }
    a++;
}
WHILE (tz || a < 4);
br = lqw + r / gai;

```

Answers

- A. 1 for statement coverage
- B. 2 for statement coverage
- C. 3 for statement coverage
- D. 4 for statement coverage
- E. 5 for statement coverage

Exercise 106

How many test cases are needed for statement coverage of the following code?

```

SWITCH (A)
{
    CASE 0:
        fzt = 4;
        WHILE (A || fzt < 10)
        {
            wm = xsf * p + o;
            fzt++;
        }
        break;
    CASE 1:
        goo = nwl - zv;
        break;
    DEFAULT:
        SWITCH (wrv)
        {
            CASE 0:
                vi = fgr + q + wh;
                break;
            CASE 1:
                e = jp * ohg;
                break;
            CASE 2:
                hc = x + nfo;
                break;
            DEFAULT:
                bvw = hm - vd - a;
                break;
        }
        break;
}
SWITCH (B)
{
    CASE 0:
        ps = 1;
        DO
        {
            t = d / zmy;
            ps--;
        }
        WHILE (i || ps > -5);
        break;
    CASE 1:
        FOR (nb = -8; nb < -2; nb++)
        {

```

```

    xg = 1 / spk;
}
break;
CASE 2:
vyc = -10;
DO
{
    owv = wg - rys * ah;
    vyc++;
}
WHILE (mt || vyc < 0);
break;
DEFAULT:
fop = 2;
DO
{
    fn = ayy / tq + jao;
    fop--;
}
WHILE (B || fop > -3);
break;
}

```

Answers

- A. 6 for statement coverage
- B. 5 for statement coverage
- C. 7 for statement coverage
- D. 4 for statement coverage
- E. 3 for statement coverage

Exercise 107

How many test cases are needed for statement coverage of the following code?

```

WHILE (g || h1 > 10)
{
    FOR (ft = 7; ft > 4; ft--)
    {
        ha = m / tf / ibz;
    }
    h1--;
}
SWITCH (gkx)
{
    CASE 0:
        IF (mw)

```

```

{
    hqa = na * w;
}
break;
CASE 1:
FOR (aq = 6; aq < 8; aq++)
{
    x = uj * cln;
}
break;
DEFAULT:
FOR (jof = 5; jof > 1; jof--)
{
    mgj = zdw / wo + ze;
}
break;
}

```

Answers

- A. 1 for statement coverage
- B. 5 for statement coverage
- C. 2 for statement coverage
- D. 3 for statement coverage
- E. 4 for statement coverage

Exercise 108

How many test cases are needed for statement coverage of the following code?

```

pj = avp + s * rf;
l = -5;
WHILE (sm || l < -1)
{
    FOR (xf = -4; xf < 1; xf++)
    {
        djx = fl - zc - ab;
    }
    l++;
}

```

Answers

- A. 4 for statement coverage
- B. 1 for statement coverage
- C. 5 for statement coverage

D. 3 for statement coverage

E. 2 for statement coverage

Exercise 109

How many test cases are needed for statement coverage of the following code?

```
IF (A)
{
    IF (B)
    {
        ic = w + wv + m;
    }
}
ELSE
{
    dt = lq - nx;
}
kbv = he - i / qih;
```

Answers

A. 1 for statement coverage

B. 2 for statement coverage

C. 5 for statement coverage

D. 3 for statement coverage

E. 4 for statement coverage

Exercise 110

How many test cases are needed for statement coverage of the following code?

```
IF (0)
{
    SWITCH (wp)
    {
        CASE 0:
            s = hk * syb * p;
            break;
        CASE 1:
            r = emn + yjc;
            break;
        DEFAULT:
            m = kno * n;
            break;
    }
}
```

```

wc = -14;
WHILE (fn || wc < -7)
{
    IF (gkv)
    {
        ld = jpl + or;
    }
    ELSE
    {
        ev = k + ax;
    }
    wc++;
}

```

Answers

- A. 4 for statement coverage
- B. 2 for statement coverage
- C. 1 for statement coverage
- D. 5 for statement coverage
- E. 3 for statement coverage

Exercise 111

How many test cases are needed for statement coverage of the following code?

```

IF (ko < 2)
{
    o = a / gcw;
    ko++;
}
IF (ko < 0)
{
    o = gcw;
    ko--;
}

```

Answers

- A. 2 for statement coverage
- B. 5 for statement coverage
- C. 1 for statement coverage
- D. 4 for statement coverage
- E. 3 for statement coverage

Exercise 112

How many test cases are needed for statement coverage of the following code?

```
mt = -2;
DO
{
    exs = -2;
    WHILE (rqi || exs < 5)
    {
        rmb = may + om * sj;
        exs++;
    }
    mt--;
}
WHILE (is || mt > -5);
SWITCH (b)
{
    CASE 0:
        yp = 10;
        DO
        {
            js = yn - sh;
            yp--;
        }
        WHILE (ip || yp > 7);
        break;
    CASE 1:
        IF (AB)
        {
            jh = n + mkb;
        }
        ELSE
        {
            bg = yjk + of;
        }
        break;
    CASE 2:
        IF (BA)
        {
            om1 = sqc - vgo;
        }
        ELSE
        {
            yi = dq + o - lpz;
        }
        break;
    DEFAULT:
        x = euj - ng - maj;
```



```

    break;
}

```

Answers

- A. 9 for statement coverage
- B. 5 for statement coverage
- C. 6 for statement coverage
- D. 8 for statement coverage
- E. 7 for statement coverage

Exercise 113

How many test cases are needed for statement coverage of the following code?

```

FOR (nf = -3; nf > -8; nf--)
{
    d = a * rgi - tz;
}
SWITCH (e)
{
    CASE 0:
        gvc = -6;
        WHILE (sg || gvc < 6)
        {
            mo = z + rzn - n;
            gvc++;
        }
        break;
    CASE 1:
        f = -15;
        WHILE (k || f < -7)
        {
            yp = yw - nb;
            f++;
        }
        break;
    DEFAULT:
        SWITCH (bm)
        {
            CASE 0:
                app = p + jh;
                break;
            CASE 1:
                b = h + yr / wn;
                break;
            DEFAULT:

```

```

    wg = w + pm;
    break;
}
break;
}

```

Answers

- A. 4 for statement coverage
- B. 2 for statement coverage
- C. 3 for statement coverage
- D. 1 for statement coverage
- E. 5 for statement coverage

Exercise 114

How many test cases are needed for statement coverage of the following code?

```

FOR (zc = 8; zc > -2; zc--)
{
    IF (mzn)
    {
        zac = zc + 1;
    }
    ELSE
    {
        zac = rnh / o + d;
    }
}
SWITCH (sm)
{
    CASE 0:
    IF (unm)
    {
        vi = x + w;
    }
    ELSE
    {
        afj = gm - gfv - yc;
    }
    break;
    CASE 1:
    ew = axl * p / m;
    break;
    DEFAULT:
    ib = 10;
    WHILE (jj || ib > 4)

```

```

{
    q = qpj - u / kj;
    ib--;
}
break;
}

```

Answers

- A. 5 for statement coverage
- B. 8 for statement coverage
- C. 7 for statement coverage
- D. 4 for statement coverage
- E. 6 for statement coverage

Exercise 115

How many test cases are needed for statement coverage of the following code?

```

IF (ZXC)
{
    SWITCH (sh)
    {
        CASE 0:
            fy = n + zdb;
            break;
        CASE 1:
            juf = fq - o - j;
            break;
        DEFAULT:
            me = yw - cbb - kf;
            break;
    }
}
ELSE
{
    oy = 3;
    WHILE (c || oy > -4)
    {
        i = sla + vz * xxx;
        oy--;
    }
}
FOR (cq = 5; cq < 7; cq++)
{
    IF (yz)
    {

```

```

    izl = fxj + ri;
}
ELSE
{
    cup = s + sqa + w;
}
}

```

Answers

- A. 6 for statement coverage
- B. 3 for statement coverage
- C. 4 for statement coverage
- D. 5 for statement coverage
- E. 7 for statement coverage

Exercise 116

How many test cases are needed for statement coverage of the following code?

```

IF (hr)
{
    FOR (sy = -6; sy < -2; sy++)
    {
        p = a * u;
    }
}
ELSE
{
    IF (c)
    {
        xxs = mo / adt + viu;
    }
    ELSE
    {
        j = g - r;
    }
}
rd = -20;
DO
{
    SWITCH (sw)
    {
        CASE 0:
            pi = nsb + xk;
            break;
        CASE 1:

```

```

    b1 = ew / gd - f;
    break;
DEFAULT:
    pv = b / qz * iuq;
    break;
}
rd++;
}
WHILE (thp || rd < -9);

```

Answers

- A. 2 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 117

How many test cases are needed for statement coverage of the following code?

```

IF (v1)
{
    os = mxk + tcs - dcl;
}
ELSE
{
    kp = h + it;
}
tf = -7;
WHILE (pkw || tf < 4)
{
    edd = 13;
    DO
    {
        a = ksy - xa + fy;
        edd--;
    }
    WHILE (jxz || edd > 2);
    tf++;
}

```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage

- C. 6 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 118

How many test cases are needed for statement coverage of the following code?

```
a = 8;
WHILE (eo = 2 || a > 8)
{
    cbw = 12;
    DO
    {
        thu = cek / ffb + iam;
        cbw--;
    }
    WHILE (k1 || cbw > 6);
    a--;
}
FOR (eo = 2; eo > -1; eo--)
{
    FOR (ho = 4; ho < 11; ho++)
    {
        ga = yk / wlf + g;
    }
}
```

Answers

- A. 5 for statement coverage
- B. 1 for statement coverage
- C. 2 for statement coverage
- D. 3 for statement coverage
- E. 4 for statement coverage

Exercise 119

How many test cases are needed for statement coverage of the following code?

```

IF (qr)
{
    jr = os / opp;
}
FOR (hbf = -6; hbf > -12; hbf--)
{
    oln = 5;
    WHILE (pp || oln > 1)
    {
        rwg = h + fs * wr;
        oln--;
    }
}

```

Answers

- A. 5 for statement coverage
- B. 3 for statement coverage
- C. 4 for statement coverage
- D. 2 for statement coverage
- E. 1 for statement coverage

Exercise 120

How many test cases are needed for statement coverage of the following code?

```

IF (f)
{
    SWITCH (wt)
    {
        CASE 0:
            css = ghq * bqt;
            break;
        CASE 1:
            o = my + ap;
            break;
        DEFAULT:
            lzu = dl - phv;
            break;
    }
}
ae = 11;
WHILE (wac || ae > 3)
{
    m = 9;
    WHILE (suc || m > 2)
    {

```

```

    wgp = j * p * y;
    m--;
}
ae--;
}

```

Answers

- A. 5 for statement coverage
- B. 3 for statement coverage
- C. 2 for statement coverage
- D. 1 for statement coverage
- E. 4 for statement coverage

Exercise 121

How many test cases are needed for statement coverage of the following code?

```

IF (vzh)
{
    lp = 10;
    WHILE (c || lp > 0)
    {
        ft = j + x;
        lp--;
    }
}
ELSE
{
    SWITCH (bs)
    {
        CASE 0:
            tk = z * k;
            break;
        CASE 1:
            siu = nx / g + s;
            break;
        DEFAULT:
            wdi = r + ph / vxb;
            break;
    }
}
SWITCH (kfk)
{
    CASE 0:
        IF (mts)
        {

```



```

    eti = aqm - uv * nwq;
}
ELSE
{
    fv = ez * rhy / qm;
}
break;
CASE 1:
IF (ett)
{
    la = uwr + vne;
}
break;
DEFAULT:
IF (qts)
{
    ptb = swi * dnd * rao;
}
break;
}

```

Answers

- A. 1 for statement coverage
- B. 3 for statement coverage
- C. 4 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 122

How many test cases are needed for statement coverage of the following code?

```

SWITCH (u)
{
    CASE 0:
    ta = -2;
    WHILE (k || ta < 6)
    {
        s = hh / r - egi;
        ta++;
    }
    break;
    CASE 1:
    nb = 4;
    WHILE (vv || nb < 8)
    {

```

```

    odm = dsj + soz / uex;
    nb++;
}
break;
CASE 2:
IF (cs)
{
    i = peb + dz;
}
break;
DEFAULT:
FOR (cc = 8; cc > 3; cc--)
{
    iyq = sci + uvy - mdy;
}
break;
}
nme = -3;
WHILE (erc || nme < 3)
{
    IF (v)
    {
        he = kj * ea;
    }
    nme++;
}

```

Answers

- A. 3 for statement coverage
- B. 5 for statement coverage
- C. 2 for statement coverage
- D. 1 for statement coverage
- E. 4 for statement coverage

Exercise 123

How many test cases are needed for statement coverage of the following code?

```

r = q + aml * ia;
IF (r > 0)
{
    SWITCH (qad)
    {
    CASE 0:
        wbh = 1 * rr - uqg;
        break;
    CASE 1:
        on = ugb / o;
        break;
    DEFAULT:
        iy = hr / iqo;
        break;
    }
}

```

Answers

- A. 4 for statement coverage
- B. 2 for statement coverage
- C. 3 for statement coverage
- D. 5 for statement coverage
- E. 6 for statement coverage

Exercise 124

How many test cases are needed for statement coverage of the following code?

```

SWITCH (zie)
{
    CASE 0:
        tm = b * uhh;
        break;
    CASE 1:
        joh = -6;
        WHILE (fag || joh < 0)
        {
            t = pnd - dyc / m;
            joh++;
        }
        break;
    DEFAULT:
        o = ak + oad;
        break;
}
SWITCH (yvg)

```

```

{
  CASE 0:
    zyb = 8;
    DO
    {
      cww = gde / ua;
      zyb--;
    }
    WHILE (bv || zyb > 2);
    break;
  CASE 1:
    IF (wh)
    {
      kiw = dhj / gw * eii;
    }
    ELSE
    {
      dc = yq * szj;
    }
    break;
  DEFAULT:
    IF (caa):
    {
      ozp = fix / nmU - xsx;
    }
    ELSE
    {
      gt = nz * y;
    }
    break;
}

```

Answers

- A. 6 for statement coverage
- B. 4 for statement coverage
- C. 2 for statement coverage
- D. 5 for statement coverage
- E. 3 for statement coverage

Exercise 125

How many test cases are needed for statement coverage of the following code?

```
SWITCH (uq1)
{
    CASE 0:
        oo = -10;
        DO
        {
            tke = mwk - fq;
            oo++;
        }
        WHILE (bu || oo < -6);
        break;
    CASE 1:
        SWITCH (tnn)
        {
            CASE 0:
                thm = a - f;
                break;
            CASE 1:
                cwg = ap * c;
                break;
            DEFAULT:
                wto = ns + y;
                break;
        }
        break;
    DEFAULT:
        IF (zfs)
        {
            sr = v - ak * mh;
        }
        ELSE
        {
            pkp = xp - bz - q;
        }
        break;
}
yun = 3;
WHILE (du || yun > -1)
{
    FOR (t1 = 10; t1 < 18; t1++)
    {
        twa = ape - ph;
    }
    yun--;
}
```

Answers

- A. 7 for statement coverage
- B. 8 for statement coverage
- C. 4 for statement coverage
- D. 5 for statement coverage
- E. 6 for statement coverage

Exercise 126

How many test cases are needed for statement coverage of the following code?

```
IF
{
    bif = 11;
}
DO
{
    x = o / iel;
    bif--;
}
WHILE (vkf || bif > 2);
```

Answers

- A. 2 for statement coverage
- B. 5 for statement coverage
- C. 3 for statement coverage
- D. 4 for statement coverage
- E. 1 for statement coverage

Exercise 127

How many test cases are needed for statement coverage of the following code?

```
IF (ko)
{
    m = -2;
    WHILE (dib || m < 5)
    {
        rsw = vcq * joa / tj;
        m++;
    }
}
coc = 9;
DO
{
    IF (ous)
```

```

{
  bm = hf - s;
}
coc--;
}
WHILE (npv || coc > 1);

```

Answers

- A. 5 for statement coverage
- B. 2 for statement coverage
- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 1 for statement coverage

Exercise 128

How many test cases are needed for statement coverage of the following code?

```

c = - 2;
WHILE (mf || c < 9)
{
  IF (c > 0)
  {
    md = 256;
  }
  ELSE
  {
    md = 2;
  }
  c++;
}
DO
{
  FOR (hy = 8; hy < 13; hy++)
  {
    yzx = yi / awk;
  }
  md++;
}
WHILE (le || md < 8);

```

Answers

- A. 3 for statement coverage
- B. 5 for statement coverage
- C. 4 for statement coverage

D. 1 for statement coverage

E. 2 for statement coverage

Exercise 129

How many test cases are needed for statement coverage of the following code?

```
IF (eb)
{
    kx = uk - ho + isa;
}
IF (mq)
{
    IF (h)
    {
        mge = tzl + bvt / no;
    }
    ELSE
    {
        d = hrd - f;
    }
}
ELSE
{
    wqk = -3;
    WHILE (t || wqk < 8)
    {
        p = le - x + mjv;
        wqk++;
    }
}
```

Answers

A. 1 for statement coverage

B. 2 for statement coverage

C. 5 for statement coverage

D. 4 for statement coverage

E. 3 for statement coverage

Exercise 130

How many test cases are needed for statement coverage of the following code?


```

i = 6;
DO
{
    ik = sm + rb;
    i--;
}
WHILE (qfw || i > 1);
SWITCH (qxa)
{
    CASE 0:
    IF (zq)
    {
        pv = y + srv;
    }
    ELSE
    {
        q = ogd * kxr + j;
    }
    break;
    CASE 1:
    SWITCH (hau)
    {
        CASE 0:
        hb = oh + mm;
        break;
        CASE 1:
        ml = nz - dp;
        break;
        DEFAULT:
        jgb = pr - goc * syj;
        break;
    }
    break;
    DEFAULT:
    IF (a)
    {
        rwa = vy - uj;
    }
    break;
}

```

Answers

- A. 4 for statement coverage
- B. 5 for statement coverage
- C. 3 for statement coverage

D. 7 for statement coverage

E. 6 for statement coverage

Exercise 131

How many test cases are needed for statement coverage of the following code?

```
qt = 8;
WHILE (ote || qt > 1)
{
    IF (p)
    {
        gnc = ak / pm * plx;
    }
    qt--;
}
IF (lf > -1)
{
    IF (lf < 1)
    {
        jl = oz * bna;
    }
    ELSE
    {
        wdt = pw * d;
    }
}
ELSE
{
    oo = 4;
    DO
    {
        jce = m1 * xmp;
        oo--;
    }
    WHILE (npa || oo > 0);
}
```

Answers

A. 1 for statement coverage

B. 5 for statement coverage

C. 3 for statement coverage

D. 4 for statement coverage

E. 2 for statement coverage

Exercise 132

How many test cases are needed for statement coverage of the following code?

```

yd = -1;
DO
{
    g = -15;
    WHILE (bjg || g < -6)
    {
        m = het - nd / gd;
        g++;
    }
    yd++;
}
WHILE (u || yd < 6);
FOR (au = 8; au < 15; au++)
{
    FOR (oir = 4; oir > -3; oir--)
    {
        s = wwkw * b / oux;
    }
}

```

Answers

- A. 5 for statement coverage
- B. 4 for statement coverage
- C. 3 for statement coverage
- D. 1 for statement coverage
- E. 2 for statement coverage

Exercise 133

How many test cases are needed for statement coverage of the following code?

```

WHILE (ex < -3)
{
    SWITCH (mzv)
    {
        CASE 0:
            biv = nwe + h;
            break;
        CASE 1:
            xvl = yfi / ci;
            break;
        DEFAULT:
            bfa = gdj - w;
            break;
    }
}

```

```

    ex++;
}

```

Answers

- A. 5 for statement coverage
- B. 1 for statement coverage
- C. 3 for statement coverage
- D. 2 for statement coverage
- E. 4 for statement coverage

Exercise 134

How many test cases are needed for statement coverage of the following code?

```

DO
{
    IF (o)
    {
        a = qhc / vj / p;
    }
    tm++;
}
WHILE (tvu || tm < 0);

WHILE (lsi || e > 1)
{
    FOR (lsv = 6; lsv < 16; lsv++)
    {
        aow = f * yxs / wc;
    }
    e--;
}

```

Answers

- A. 3 for statement coverage
- B. 5 for statement coverage
- C. 4 for statement coverage
- D. 2 for statement coverage
- E. 1 for statement coverage

Exercise 135

How many test cases are needed for statement coverage of the following code?

```

IF (sin)
{
    IF (cos)
    {
        q = xy / z;
    }
}
SWITCH (kn)
{
    CASE 0:
    SWITCH (x)
    {
        CASE 0:
            s = v / y + qfo;
            break;
        DEFAULT:
            k = i + ukq / b;
            break;
    }
    break;
    CASE 1:
    IF (yp)
    {
        ff = imn * re;
    }
    break;
    CASE 2:
    xlr = qnn / gs;
    break;
    DEFAULT:
    SWITCH (1)
    {
        CASE 0:
            br = pr - vj * krq;
            break;
        DEFAULT:
            bb = rkv / yqa;
            break;
    }
    break;
}

```

Answers

- A. 7 for statement coverage
- B. 9 for statement coverage

C. 6 for statement coverage

D. 5 for statement coverage

E. 8 for statement coverage

Exercise 136

How many test cases are needed for statement coverage of the following code?

```

IF (s)
{
    y = 3;
    WHILE (is || y < 7)
    {
        ik = c + zw;
        y++;
    }
}
ELSE
{
    SWITCH (vkk)
    {
        CASE 0:
            o = fd * iq / v;
            break;
        CASE 1:
            zld = g / cn;
            break;
        DEFAULT:
            fkl = p * cuq;
            break;
    }
}
hh = 8;
DO
{
    FOR (n = -7; n > -16; n--)
    {
        gcr = frm + lyy + e;
    }
    hh--;
}
WHILE (trp || hh > 5);

```

Answers

A. 5 for statement coverage

B. 2 for statement coverage

C. 3 for statement coverage

D. 4 for statement coverage

E. 1 for statement coverage

Exercise 137

How many test cases are needed for statement coverage of the following code?

```
IF (th)
{
    ip = 7;
    WHILE (lt || ip > -4)
    {
        cz = kdo - w;
        ip--;
    }
}
SWITCH (vfk)
{
    CASE 0:
    IF (m1)
    {
        zcq = bis * nlg * fg;
    }
    ELSE
    {
        qip = ls - msv;
    }
    break;
    CASE 1:
    itg = -7;
    WHILE (c || itg < 0)
    {
        wkm = gc / tg + xov;
        itg++;
    }
    break;
    CASE 2:
    IF (k)
    {
        diw = byh / i;
    }
    ELSE
    {
        m = fme + xt;
    }
}
```

```

break;
DEFAULT:
FOR (oi = -6; oi < -1; oi++)
{
    mpn = ac - ir;
}
break;
}

```

Answers

- A. 10 for statement coverage
- B. 6 for statement coverage
- C. 9 for statement coverage
- D. 7 for statement coverage
- E. 8 for statement coverage

Exercise 138

How many test cases are needed for statement coverage of the following code?

```

FOR (ajg = 0; ajg > -2; ajg--)
{
    uad = -12;
    DO
    {
        gf = v - jct / aw;
        uad++;
    }
    WHILE (o || uad < -4);
}
FOR (b = 2; b > -2; b--)
{
    IF (si)
    {
        jg = yc / ypf;
    }
    ELSE
    {
        quy = g + y * dcn;
    }
}

```

Answers

- A. 4 for statement coverage
- B. 3 for statement coverage

- C. 5 for statement coverage
- D. 2 for statement coverage
- E. 1 for statement coverage

Exercise 139

How many test cases are needed for statement coverage of the following code?

```
jb = kas + was + gas;  
IF (jb == 0)  
{  
    SWITCH (eh)  
    {  
    CASE 0:  
        n = tmu + kac;  
        break;  
    CASE 1:  
        wt = ze + was;  
        break;  
    CASE 2:  
        is = iq * cfl - gas;  
        break;  
    DEFAULT:  
        swa = b / v * x;  
        break;  
    }  
}
```

Answers

- A. 3 for statement coverage
- B. 7 for statement coverage
- C. 5 for statement coverage
- D. 6 for statement coverage
- E. 4 for statement coverage

Exercise 140

How many test cases are needed for statement coverage of the following code?

```

yd = 7;
WHILE (gg || yd > 1)
{
    IF (oy)
    {
        l = doo - rud / tl;
    }
    yd--;
}
SWITCH (gs)
{
    CASE 0:
    FOR (eo = 8; eo < 12; eo++)
    {
        wc = k - mv * vx;
    }
    break;
    CASE 1:
    nt = -12;
    DO
    {
        dc = xxk / ka;
        nt++;
    }
    WHILE (mk || nt < -8);
    break;
    CASE 2:
    FOR (oim = -8; oim < -1; oim++)
    {
        drl = rn - uy + de;
    }
    break;
    DEFAULT:
    IF (m)
    {
        dhy = qg * xsi;
    }
    ELSE
    {
        sou = p / v;
    }
    break;
}

```

Answers

- A. 7 for statement coverage
- B. 5 for statement coverage
- C. 3 for statement coverage
- D. 4 for statement coverage
- E. 6 for statement coverage

Exercise 141

How many test cases are needed for statement coverage of the following code?

```
IF (li == 99)
{
    wu = bxp * e + ab;
}
IF (li > 99)
{
    IF (uxh)
    {
        uk = bfg + dtz * pr;
    }
}
```

Answers

- A. 5 for statement coverage
- B. 3 for statement coverage
- C. 4 for statement coverage
- D. 2 for statement coverage
- E. 1 for statement coverage

Exercise 142

How many test cases are needed for statement coverage of the following code?

```
IF (x > 67)
{
    IF (q)
    {
        h = dst / sio / f;
    }
}
ELSE
{
    IF (x == 0)
    {
        j = ypo * tyq + ikr;
    }
}
```

```

}
jd = -4;
DO
{
    if = 13;
    WHILE (js || if > 10)
    {
        iut = n * ds;
        if--;
    }
    jd--;
}
WHILE (wv || jd > -8);

```

Answers

- A. 3 for statement coverage
- B. 2 for statement coverage
- C. 1 for statement coverage
- D. 4 for statement coverage
- E. 5 for statement coverage

Exercise 143

How many test cases are needed for statement coverage of the following code?

```

IF (x > 0)
{
    FOR (n = -6; n > -7; n--)
    {
        x = x * (-1);
    }
}
ELSE
{
    IF (fu)
    {
        kdw = x * (-1);
    }
}
IF (x > 0)
{
    FOR (zmd = -9; zmd > -17; zmd--)
    {
        jgr = s * jkd * nzc;
    }
}

```

Answers

- A. 3 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 144

How many test cases are needed for statement coverage of the following code?

```

y = 13;
DO
{
    FOR (jv = 7; jv > 0; jv--)
    {
        m = th * upq;
    }
    y--;
}
WHILE (xu || y > 6);
IF (f1)
{
    SWITCH (p)
    {
        CASE 0:
            zm = v - k / td;
            break;
        DEFAULT:
            ymm = grb * gd - ulz;
            break;
    }
}
ELSE
{
    IF (nyu)
    {
        ek = r / vby / wsl;
    }
    ELSE
    {
        pej = rn / xty;
    }
}

```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage
- C. 3 for statement coverage
- D. 5 for statement coverage
- E. 1 for statement coverage

Exercise 145

How many test cases are needed for statement coverage of the following code?

```
FOR (dcq = 9; dcq < 19; dcq++)
{
    IF (pyb)
    {
        pbk = vl - w;
    }
    ELSE
    {
        mtk = ymm - xo;
    }
}
sp = -3;
DO
{
    ej = 1;
    DO
    {
        d = yv / f;
        ej++;
    }
    WHILE (oso || ej < 8);
    sp--;
}
WHILE (pj || sp > -8);
```

Answers

- A. 3 for statement coverage
- B. 4 for statement coverage
- C. 2 for statement coverage
- D. 1 for statement coverage
- E. 5 for statement coverage

Exercise 146

How many test cases are needed for statement coverage of the following code?

```

SWITCH (t)
{
    CASE 0:
    SWITCH (o)
    {
        CASE 0:
            run = h / bnf;
            break;
        CASE 1:
            uvo = bz + imk / gv;
            break;
    }
    break;
    CASE 1:
    FOR (fqg = 4; fqg < 9; fqg++)
    {
        yt = tc * ce * tr;
    }
    break;
    DEFAULT:
    ifw = -19;
    DO
    {
        p = u - ouz * g;
        ifw++;
    }
    WHILE (jz1 || ifw < -8);
    break;
}
SWITCH (qtu)
{
    CASE 0:
    cm = 6;
    DO
    {
        z = m + dt - jy;
        cm--;
    }
    WHILE (nim || cm > 0);
    break;
    DEFAULT:
    SWITCH (a)
    {
        CASE 0:
            hpu = ym / nqd;

```

```

    break;
CASE 1:
    ea = fhk - unh;
    break;
CASE 2:
    ny = fo * vln / zg;
    break;
DEFAULT:
    sgq = fl * kxw - dx;
    break;
}
break;
}

```

Answers

- A. 4 for statement coverage
- B. 7 for statement coverage
- C. 3 for statement coverage
- D. 6 for statement coverage
- E. 5 for statement coverage

Exercise 147

How many test cases are needed for statement coverage of the following code?

```

IF (gxg)
{
    SWITCH (vu)
    {
        CASE 0:
            gaa = wd - cp;
            break;
        CASE 1:
            eq = pl + zu - svx;
            break;
        CASE 2:
            p = ort * ih;
            break;
        DEFAULT:
            ywy = hyt * k + xl;
            break;
    }
}
FOR (an = -1; an < 8; an++)
{
    FOR (n = -1; n < 8; n++)

```



```

{
  cz = c - r / bhc;
}
}

```

Answers

- A. 1 for statement coverage
- B. 2 for statement coverage
- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 148

How many test cases are needed for statement coverage of the following code?

```

SWITCH (jo)
{
  CASE 0:
    SWITCH (fip)
    {
      CASE 0:
        kse = tsx / yu;
        break;
      CASE 1:
        dk = ngr / p;
        break;
      CASE 2:
        mrj = rln + imk;
        break;
      DEFAULT:
        rij = xdk + h;
        break;
    }
    break;
  CASE 1:
    SWITCH (x)
    {
      CASE 0:
        vmg = hzm / uk;
        break;
      CASE 1:
        fpw = ahu + a;
        break;
      DEFAULT:
        sm = g + yp * jpy;
    }
  }
}

```

```

    break;
}
break;
DEFAULT:
FOR (z1 = -3; z1 > -5; z1--)
{
    pxf = yb * xu + ak;
}
break;
}
FOR (pxf = 0; pxf < 8; pxf++)
{
    FOR (ci = -2; ci < 9; ci++)
    {
        uz = ot * bu;
    }
}

```

Answers

- A. 11 for statement coverage
- B. 12 for statement coverage
- C. 9 for statement coverage
- D. 8 for statement coverage
- E. 10 for statement coverage

Exercise 149

How many test cases are needed for statement coverage of the following code?

```

IF (imd)
{
    FOR (ctp = 2; ctp > -9; ctp--)
    {
        wv = ikm * opz;
    }
}
tb = -17;
WHILE (t || tb < -7)
{
    IF (gfn)
    {
        ep = y / yi;
    }
    ELSE
    {
        fx = nk / b;
    }
}

```

```

    }
    tb++;
}

```

Answers

- A. 5 for statement coverage
- B. 2 for statement coverage
- C. 1 for statement coverage
- D. 4 for statement coverage
- E. 3 for statement coverage

Exercise 150

How many test cases are needed for statement coverage of the following code?

```

SWITCH (c)
{
    CASE 0:
        dd = -11;
        WHILE (kho || dd < -8)
        {
            b = n - ybw;
            dd++;
        }
        break;
    CASE 1:
        SWITCH (xs)
        {
            CASE 0:
                elm = pl + hh / v;
                break;
            CASE 1:
                bj = l + yqb * za;
                break;
            DEFAULT:
                h = i / j / es;
                break;
        }
        break;
    DEFAULT:
        mj = 8;
        DO
        {
            bch = dy + ff;
            mj--;
        }
}

```

```

    WHILE (nk || mj > 1);
    break;
}
FOR (d = 1; d > -6; d--)
{
    FOR (nc = -4; nc > -7; nc--)
    {
        raq = a / ub * jqg;
    }
}

```

Answers

- A. 5 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 3 for statement coverage
- E. 2 for statement coverage

Exercise 151

How many test cases are needed for statement coverage of the following code?

```

nd = 15;
DO
{
    IF (ot == 1)
    {
        xu = bc - qr * c;
    }
    nd--;
}
WHILE (loj || nd > 4);
FOR (y = 5; y < 8; y++)
{
    IF (sv)
    {
        u = dw - xa;
    }
}
jh = 15;
WHILE (k || jh > 10)
{
    IF (p)
    {
        osw = h / ea;
    }
}

```

```

    jh--;
}

```

Answers

- A. 3 for statement coverage
- B. 4 for statement coverage
- C. 2 for statement coverage
- D. 1 for statement coverage
- E. 5 for statement coverage

Exercise 152

How many test cases are needed for statement coverage of the following code?

```

FOR (ra = 7; ra > -2; ra--)
{
    bzq = zbl / ajb;
}
IF (b)
{
    FOR (bao = 6; bao < 11; bao++)
    {
        k = qs / gaa;
    }
}
FOR (w = 8; w > 1; w--)
{
    IF (nd)
    {
        odr = raf * n;
    }
    ELSE
    {
        e = ug / za;
    }
}

```

Answers

- A. 1 for statement coverage
- B. 2 for statement coverage
- C. 3 for statement coverage
- D. 5 for statement coverage
- E. 4 for statement coverage

Exercise 153

How many test cases are needed for statement coverage of the following code?

```

n = 9;
DO
{
  FOR (er = -4; er > -9; er--)
  {
    ee = p - 1 - g;
  }
  n--;
}
WHILE (v || n > 3);
ve = -15;
WHILE (fxz || ve < -9)
{
  rx = a + ih - lfh;
  ve++;
}
IF (tm)
{
  ro = tlp / xe / qb;
}
ELSE
{
  FOR (b = 2; b > -7; b--)
  {
    wc = vw1 + mc * kvi;
  }
}

```

Answers

- A. 4 for statement coverage
- B. 1 for statement coverage
- C. 2 for statement coverage
- D. 3 for statement coverage
- E. 5 for statement coverage

Exercise 154

How many test cases are needed for statement coverage of the following code?

```

IF (zd > 2)
{
    IF (zd > 100)
    {
        j = xq * e / wz;
    }
}
IF (zd < 103)
{
    zd = g - jr / lu;
}
wzp = i + p - ei;

```

Answers

- A. 4 for statement coverage
- B. 1 for statement coverage
- C. 5 for statement coverage
- D. 3 for statement coverage
- E. 2 for statement coverage

Exercise 155

How many test cases are needed for statement coverage of the following code?

```

FOR (w = 4; w > -2; w--)
{
    IF (y1)
    {
        bq = od - z + bcm;
    }
}
IF (ip)
{
    SWITCH (mb)
    {
        CASE 0:
            j = ll + bn;
            break;
        DEFAULT:
            teq = jeu / bus;
            break;
    }
}
ELSE
{
    IF (qhu)

```

```

    {
        pr = xki / wl - t;
    }
}
lpm = 10;
WHILE (lv || lpm > 1)
{
    ge = 15;
    DO
    {
        g = p - es - dfs;
        ge--;
    }
    WHILE (a || ge > 8);
    lpm--;
}

```

Answers

- A. 3 for statement coverage
- B. 2 for statement coverage
- C. 4 for statement coverage
- D. 5 for statement coverage
- E. 1 for statement coverage

Exercise 156

How many test cases are needed for statement coverage of the following code?

```

IF (a > 10)
{
    cpi = 0;
    WHILE (u || cpi < 3)
    {
        d = xao + sc;
        cpi++;
    }
}
IF (a > 1)
{
    IF (yb)
    {
        np = qd / lr;
    }
}
nx = 16;
DO

```



```

{
  IF (a > 5)
  {
    vv = pkr * bg;
  }
  nx--;
}
WHILE (fqq || nx > 8);

```

Answers

- A. 4 for statement coverage
- B. 2 for statement coverage
- C. 5 for statement coverage
- D. 3 for statement coverage
- E. 1 for statement coverage

Exercise 157

How many test cases are needed for statement coverage of the following code?

```

FOR (qvw = -3; qvw < 7; qvw++)
{
  SWITCH (c)
  {
    CASE 0:
      k = we + tg;
      break;
    CASE 1:
      hzj = m / l / eae;
      break;
    CASE 2:
      cpf = gxy + hz;
      break;
    DEFAULT:
      sb = t - ezr;
      break;
  }
}
zi = 5;
DO
{
  IF (pr)
  {
    nq = zf * hmk - uh;
  }
  ELSE

```

```

    {
        ub = bft / h * pzt;
    }
    zi--;
}
WHILE (pcv || zi > -6);
v = 2;
DO
{
    gfx = -10;
    DO
    {
        rry = moi + me + b;
        gfx++;
    }
    WHILE (u || gfx < -4);
    v++;
}
WHILE (rps || v < 8);

```

Answers

- A. 6 for statement coverage
- B. 4 for statement coverage
- C. 8 for statement coverage
- D. 7 for statement coverage
- E. 5 for statement coverage

Exercise 158

How many test cases are needed for statement coverage of the following code?

```

IF (a)
{
    o = -9;
    WHILE (cbt || o < -4)
    {
        rv1 = p + nv;
        o++;
    }
}
IF (a)
{
    FOR (um = 6; um > 3; um--)
    {
        zwd = s * g * da;
    }
}

```

```

}
FOR (1 = -2; 1 > -11; 1--)
{
    rjz = -3;
    DO
    {
        rb = bc + k;
        rjz++;
    }
    WHILE (j || rjz < 9);
}

```

Answers

- A. 2 for statement coverage
- B. 5 for statement coverage
- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 1 for statement coverage

Exercise 159

How many test cases are needed for statement coverage of the following code?

```

jpa = ub * u;
SWITCH (ref)
{
    CASE 0:
    IF (mu)
    {
        vg = twc / gvb;
    }
    ELSE
    {
        g = bqj * m * qx;
    }
    break;
    CASE 1:
    b = -13;
    WHILE (d || b < -9)
    {
        j = ji + ksd - kyr;
        b++;
    }
    break;
    DEFAULT:
    x = 6;
}

```

```

DO
{
    egm = vo - n1 / uaq;
    x--;
}
WHILE (gde || x > -2);
break;
}
s = 0;
WHILE (sk || s < 3)
{
    IF (vwg)
    {
        jal = mt / so;
    }
    s++;
}

```

Answers

- A. 5 for statement coverage
- B. 2 for statement coverage
- C. 3 for statement coverage
- D. 4 for statement coverage
- E. 6 for statement coverage

Exercise 160

How many test cases are needed for statement coverage of the following code?

```

IF (tdd)
{
    IF (njp)
    {
        gk = tm * a - mwz;
    }
}
IF (j1)
{
    t1 = -17;
    DO
    {
        w = e - b * gby;
        t1++;
    }
    WHILE (n || t1 < -6);
}

```

```

IF (ecn)
{
    FOR (yzd = 4; yzd > 1; yzd--)
    {
        ji = p - yc;
    }
}
ELSE
{
    IF (x)
    {
        hdg = duw - fzs * wwc;
    }
}

```

Answers

- A. 1 for statement coverage
- B. 3 for statement coverage
- C. 4 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 161

How many test cases are needed for statement coverage of the following code?

```

w = 6;
DO
{
    FOR (auj = -1; auj < 5; auj++)
    {
        n = bg * ye;
    }
    w--;
}
WHILE (y || w > 2);
lm = 5;
WHILE (nzu || lm > -3)
{
    xiv = xw / mm * b;
    lm--;
}
IF (ro)
{
    IF (pjo)
    {

```

```

    eio = x * ibu * ikw;
  }
}
ELSE
{
  cj = 11;
  WHILE (cld || cj > 1)
  {
    ml = hj / ieq;
    cj--;
  }
}

```

Answers

- A. 1 for statement coverage
- B. 4 for statement coverage
- C. 3 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 162

How many test cases are needed for statement coverage of the following code?

```

FOR (hoo = -4; hoo > -15; hoo--)
{
  v = 2;
  DO
  {
    olk = pd + y - nqv;
    v--;
  }
  WHILE (aa || v > -7);
}
SWITCH (vgd)
{
  CASE 0:
    FOR (i = -3; i > -6; i--)
    {
      qsh = tck * uz;
    }
    break;
  DEFAULT:
    j = 2;
    DO
    {

```

```

    s = tnx / xrh / ltt;
    j--;
}
WHILE (tm || j > -9);
break;
}
FOR (gw = -1; gw > -6; gw--)
{
    IF (urm)
    {
        bky = k - zap * xti;
    }
}

```

Answers

- A. 5 for statement coverage
- B. 6 for statement coverage
- C. 3 for statement coverage
- D. 4 for statement coverage
- E. 2 for statement coverage

Exercise 163

How many test cases are needed for statement coverage of the following code?

```

IF (coc)
{
    FOR (br = 8; br < 10; br++)
    {
        hk = cr + lq;
    }
}
ELSE
{
    IF (wr)
    {
        su = kth * ocy + ijg;
    }
}
t1m = w - nwq - us;
SWITCH (goc)
{
    CASE 0:
        dbi = -11;
        WHILE (tms || dbi < -7)
        {

```

```

    yq = jhz * hwx * ca;
    dbi++;
}
break;
CASE 1:
FOR (jb = -5; jb > -9; jb--)
{
    l = v / jqb;
}
break;
CASE 2:
xqu = 15;
WHILE (jja || xqu > 3)
{
    dxt = lo + y / j;
    xqu--;
}
break;
DEFAULT:
IF (x)
{
    qbt = vps * jr;
}
break;
}

```

Answers

- A. 1 for statement coverage
- B. 3 for statement coverage
- C. 2 for statement coverage
- D. 4 for statement coverage
- E. 5 for statement coverage

Exercise 164

How many test cases are needed for statement coverage of the following code?

```

FOR (x = 1; x < 5; x++)
{
    q = -2;
    DO
    {
        yc = fnp + s / y;
        q--;
    }
    WHILE (1 || q > -6);
}

```



```
}
IF (ghb)
{
    FOR (ssg = 5; ssg < 12; ssg++)
    {
        wwi = kqy * o / lo;
    }
}
SWITCH (j)
{
    CASE 0:
    IF (bb)
    {
        sqh = ci - kry;
    }
    ELSE
    {
        fim = su / zhq - fuq;
    }
    break;
    CASE 1:
    IF (oz)
    {
        lae = bmx + gax + psv;
    }
    ELSE
    {
        qf = u / n / mb;
    }
    break;
    CASE 2:
    odw = 15;
    DO
    {
        vo = oa - yz * e;
        odw--;
    }
    WHILE (h || odw > 7);
    break;
    DEFAULT:
    IF (gp)
    {
        nc = g / nfn * th;
    }
    break;
```

```
}
```

Answers

- A. 3 for statement coverage
- B. 6 for statement coverage
- C. 5 for statement coverage
- D. 2 for statement coverage
- E. 4 for statement coverage

Exercise 165

How many test cases are needed for statement coverage of the following code?

```
IF ( fhm)
{
    SWITCH (xxa)
    {
        CASE 0:
            zb = sp - b;
            break;
        CASE 1:
            kg = q * ze;
            break;
        CASE 2:
            sx = en - czn;
            break;
        DEFAULT:
            z = uvi + zl - tf;
            break;
    }
}
SWITCH (zj)
{
    CASE 0:
        IF (jza)
        {
            ch = lbz / tm;
        }
        break;
    CASE 1:
        bql = p - xgw / r;
        break;
    DEFAULT:
        SWITCH (dqf)
        {
            CASE 0:
```

```

    ibm = myi / cr;
    break;
CASE 1:
    sw = vbt + aid;
    break;
CASE 2:
    rh = fw / l;
    break;
DEFAULT:
    qw = xi * kks;
    break;
}
break;
}
ut = a / be + cjm;

```

Answers

- A. 4 for statement coverage
- B. 2 for statement coverage
- C. 5 for statement coverage
- D. 3 for statement coverage
- E. 6 for statement coverage

Exercise 166

How many test cases are needed for statement coverage of the following code?

```

ecx = 0;
WHILE (cm || ecx < 10)
{
    ak = td - o - xea;
    ecx++;
}
SWITCH (dio)
{
    CASE 0:
    IF (sdj)
    {
        g = w / j + m;
    }
    ELSE
    {
        h = zp * x / eae;
    }
    break;
CASE 1:

```

```

FOR (id = 1; id < 11; id++)
{
    vw = dh / flj - web;
}
break;
DEFAULT
break;
}
IF (q)
{
    yu = 11;
    DO
    {
        dxi = tpq / pnk + go;
        yu--;
    }
    WHILE (i || yu > 7);
}
ELSE
{
    gy = jox / bv * mft;
}

```

Answers

- A. 5 for statement coverage
- B. 7 for statement coverage
- C. 6 for statement coverage
- D. 3 for statement coverage
- E. 4 for statement coverage

Exercise 167

How many test cases are needed for statement coverage of the following code?

```

o = 2;
WHILE (pkj || o < 9)
{
    IF (t)
    {
        wf = in * u;
    }
    ELSE
    {
        ndi = z * dl;
    }
    o++;
}

```

```

}
SWITCH (vp)
{
    CASE 0:
    FOR (juy = -5; juy < 6; juy++)
    {
        lp = ahx - rwr * un;
    }
    break;
    DEFAULT:
    SWITCH (up1)
    {
        CASE 0:
        op = d - r;
        break;
        CASE 1:
        lb = nly + w + rei;
        break;
        DEFAULT:
        la = kbi / iod;
        break;
    }
    break;
}
qsc = 3;
WHILE (du || qsc > -7)
{
    FOR (c = 3; c > 0; c--)
    {
        cr = cqg / f + oce;
    }
    qsc--;
}

```

Answers

- A. 4 for statement coverage
- B. 5 for statement coverage
- C. 6 for statement coverage
- D. 2 for statement coverage
- E. 3 for statement coverage

Exercise 168

How many test cases are needed for statement coverage of the following code?

```

a = 1;
IF (a == 1)
{
    FOR (cdc = -5; cdc < 4; cdc++)
    {
        but = kzc / cdj;
    }
}
u = emz / o;

```

Answers

- A. 2 for statement coverage
- B. 5 for statement coverage
- C. 1 for statement coverage
- D. 3 for statement coverage
- E. 4 for statement coverage

Exercise 169

How many test cases are needed for statement coverage of the following code?

```

FOR (i = -3; i > -12; i--)
{
    SWITCH (j)
    {
        CASE 0:
            ii = a / yw;
            break;
        CASE 1:
            w = da + tji;
            break;
        DEFAULT:
            bjv = ied + dkp;
            break;
    }
}
nwy = ud * z - t;
IF (gyt)
{
    IF (puo)
    {
        m = ha / hot * zvk;
    }
}
ELSE
{

```

```
FOR (y1 = 1; y1 > -3; y1--)  
{  
  nza = esf / zv * ch;  
}  
}
```

Answers

- A. 2 for statement coverage
- B. 4 for statement coverage
- C. 3 for statement coverage
- D. 6 for statement coverage
- E. 5 for statement coverage

Exercise 170

How many test cases are needed for statement coverage of the following code?

```
IF (a = -4)  
{  
  IF (a < 0)  
  {  
    pzz = cd + dgi - tj;  
  }  
}  
r = flu + xyq;  
ipy = jh * z * har;
```

Answers

- A. 2 for statement coverage
- B. 1 for statement coverage
- C. 3 for statement coverage
- D. 4 for statement coverage
- E. 5 for statement coverage

Exercise 171

How many test cases are needed for statement coverage of the following code?

```

IF (ft)
{
    FOR (lmk = 10; lmk > 4; lmk--)
    {
        IF (m)
        {
            qqo = vvd + y;
        }
        ELSE
        {
            z = dn - qx + a;
        }
    }
}
IF (jrh)
{
    IF (mj)
    {
        SWITCH (lb)
        {
            CASE 0:
                r = t + zq;
                break;
            CASE 1:
                s = own - lnq;
                break;
            DEFAULT:
                tv = pwp / xf;
                break;
        }
    }
}
ELSE
{
    qre = w - yad * au;
}

```

Answers

- A. 4 for statement coverage
- B. 5 for statement coverage
- C. 3 for statement coverage
- D. 2 for statement coverage
- E. 1 for statement coverage

Exercise 172

How many test cases are needed for statement coverage of the following code?

```
jd = upn - o / t;
IF (ddo)
{
    hng = 8;
    DO
    {
        mi = -1;
        DO
        {
            be = qhz * m * ey;
            mi++;
        }
        WHILE (dai || mi < 7);
        hng--;
    }
    WHILE (iif || hng > -4);
}
```

Answers

- A. 3 for statement coverage
- B. 4 for statement coverage
- C. 2 for statement coverage
- D. 5 for statement coverage
- E. 1 for statement coverage

Exercise 173

How many test cases are needed for statement coverage of the following code?

```
IF (pk)
{
    FOR (asi = 10; asi > 0; asi--)
    {
        FOR (fk1 = 5; fk1 > -4; fk1--)
        {
            hr = ed1 / 1;
        }
    }
}
ELSE
{
    IF (g)
    {
```

```

pa = -6;
WHILE (wx || pa < 6)
{
    dde = jn - h;
    pa++;
}
}
ELSE
{
    FOR (uqj = -5; uqj < 3; uqj++)
    {
        ceh = e * tgx;
    }
}
}
lv = -24;
DO
{
    SWITCH (ot)
    {
    CASE 0:
        FOR (ux = -2; ux < 2; ux++)
        {
            rjm = rh / nv - qcw;
        }
        break;
    CASE 1:
        IF (dy)
        {
            cvj = p + uy;
        }
        ELSE
        {
            vbe = ex - v;
        }
        break;
    DEFAULT:
        IF (dfu)
        {
            s = d - y;
        }
        ELSE
        {
            vb = avf - fw;
        }
    }
}

```

```

        break;
    }
    lv++;
}
WHILE (cg || lv < -9);

```

Answers

- A. 3 for statement coverage
- B. 5 for statement coverage
- C. 2 for statement coverage
- D. 1 for statement coverage
- E. 4 for statement coverage

Exercise 174

How many test cases are needed for statement coverage of the following code?

```

pf = 8;
WHILE (j || pf > 0)
{
    FOR (r = 9; r > 7; r--)
    {
        oi = kzh * re;
    }
    pf--;
}
IF (eet)
{
    IF (a)
    {
        SWITCH (k)
        {
            CASE 0:
                t = jkf - zr - ul;
                break;
            CASE 1:
                nx = x - kuh;
                break;
            DEFAULT:
                cok = lw / yld;
                break;
        }
    }
}
ELSE
{

```

```

clo = -8;
DO
{
  SWITCH (vks)
  {
    CASE 0:
      v = alf - uei;
      break;
    CASE 1:
      aba = u - e - tn;
      break;
    DEFAULT:
      g = al + lca;
      break;
  }
  clo++;
}
WHILE (jsm || clo < 2);
}

```

Answers

- A. 9 for statement coverage
- B. 7 for statement coverage
- C. 10 for statement coverage
- D. 6 for statement coverage
- E. 8 for statement coverage

Exercise 175

How many test cases are needed for statement coverage of the following code?

```

gdx = ygw + zh;
IF (udk < 14)
{
  IF (ngg < 14)
  {
    IF (xk < 14)
    {
      d = y * a * eu;
    }
  }
}
}

```

Answers

- A. 3 for statement coverage
- B. 4 for statement coverage

- C. 2 for statement coverage
- D. 5 for statement coverage
- E. 1 for statement coverage

Exercise 176

How many test cases are needed for statement coverage of the following code?

```
FOR (y = -2; y > -7; y--)
{
    fbt = -8;
    WHILE (e || fbt < -3)
    {
        IF (uk)
        {
            kb = xa * v / ds;
        }
        fbt++;
    }
}
FOR (a = -1; a < 1; a++)
{
    oz = xzo + p / s;
}
```

Answers

- A. 3 for statement coverage
- B. 5 for statement coverage
- C. 2 for statement coverage
- D. 1 for statement coverage
- E. 4 for statement coverage

Exercise 177

How many test cases are needed for statement coverage of the following code?

```
mwu = -10;
WHILE (st || mwu < -6)
{
    IF (gq)
    {
        v = -1;
        DO
        {
            o = pu + f;
            v++;
        }
```

```

    }
    WHILE (1 || v < 7);
    }
    mwu++;
}
SWITCH (dg)
{
    CASE 0:
    IF (w)
    {
        ato = -3;
        DO
        {
            puu = sne / np + fdi;
            ato--;
        }
        WHILE (dn || ato > -9);
    }
    ELSE
    {
        iet = a - pq;
    }
    break;
    CASE 1:
    IF (on)
    {
        SWITCH (up)
        {
            CASE 0:
                nv = no / qpl / yyv;
                break;
            CASE 1:
                evo = ts + e * h;
                break;
            DEFAULT:
                jcz = huh * oh + lz;
                break;
        }
    }
}
ELSE
{
    IF (xtv)
    {
        n = qql / u - br;
    }
}

```

```

}
break;
CASE 2:
kls = 7;
WHILE (ag || kls > -5)
{
    SWITCH (us)
    {
        CASE 0:
            pr = ccj / bh;
            break;
        DEFAULT:
            diz = wh - r;
            break;
    }
    kls--;
}
break;
DEFAULT:
FOR (zqd = -4; zqd > -8; zqd--)
{
    FOR (prf = -1; prf > -8; prf--)
    {
        tc = ulw / jg * lw;
    }
}
break;
}

```

Answers

- A. 8 for statement coverage
- B. 7 for statement coverage
- C. 11 for statement coverage
- D. 9 for statement coverage
- E. 10 for statement coverage

Exercise 178

How many test cases are needed for statement coverage of the following code?

```

m = ouk / y;
SWITCH (mp)
{
    CASE 0:
        IF (ebk)
        {
            oi = i / jhc;
        }
        break;
    CASE 1:
        rlt = 3;
        WHILE (lzo || rlt > -1)
        {
            sn = 0;
            DO
            {
                x = e * fnf;
                sn--;
            }
            WHILE (hxn || sn > -4);
            rlt--;
        }
        break;
    DEFAULT:
        IF (rzi)
        {
            SWITCH (b1)
            {
                CASE 0:
                    hob = bix / n;
                    break;
                DEFAULT:
                    ljr = yg / ur;
                    break;
            }
        }
    ELSE
    {
        czh = kex - by * k1;
    }
    break;
}

```

Answers

A. 7 for statement coverage

- B. 5 for statement coverage
- C. 3 for statement coverage
- D. 6 for statement coverage
- E. 4 for statement coverage

Exercise 179

How many test cases are needed for statement coverage of the following code?

```
SWITCH (zvn)
{
  CASE 0:
    IF (zf)
    {
      FOR (iid = -7; iid < -2; iid++)
      {
        b = gnr * z;
      }
    }
  ELSE
  {
    ps = 2;
    DO
    {
      mc = ktr + bk / igz;
      ps++;
    }
    WHILE (rz || ps < 5);
  }
  break;
  CASE 1:
    SWITCH (k)
    {
      CASE 0:
        IF (tns)
        {
          ha = d / l + iyv;
        }
        break;
      CASE 1:
        pj = -12;
        DO
        {
          df = pyq / gco;
          pj++;
        }
    }
  }
```

```

    WHILE (wuw || pj < -7);
    break;
    DEFAULT:
    IF (xay)
    {
        uo = yh * aaw;
    }
    break;
}
break;
CASE 2:
bgu = 21;
WHILE (zp || bgu > 10)
{
    IF (na)
    {
        qwu = wz + sid + sm;
    }
    ELSE
    {
        po = jbd + fe;
    }
    bgu--;
}
break;
DEFAULT:
IF (qkd)
{
    mab = 5;
    WHILE (sc || mab > -7)
    {
        f = tp / oz;
        mab--;
    }
}
break;
}
IF (db)
{
    IF (sgs)
    {
        IF (rw)
        {
            eqm = kiz * hwn - bfb;
        }
    }
}

```

```

ELSE
{
    aq = xsn + r * i;
}
}
ELSE
{
    SWITCH (w)
    {
        CASE 0:
            u = p + th;
            break;
        DEFAULT:
            qu = ty + nm;
            break;
    }
}
}

```

Answers

- A. 10 for statement coverage
- B. 11 for statement coverage
- C. 12 for statement coverage
- D. 9 for statement coverage
- E. 8 for statement coverage

Exercise 180

How many test cases are needed for statement coverage of the following code?

```

IF (mc)
{
    IF (dx)
    {
        IF (wkw)
        {
            uqa = osg - g;
        }
    }
}
ELSE
{
    tat = gyk / zh;
}
IF (h)
{

```

```

gcb = 3;
DO
{
  IF (omi)
  {
    jjf = nj - gw;
  }
  gcb--;
}
WHILE (mg || gcb > -2);
}
ELSE
{
  nhj = 12;
  DO
  {
    yy = jdf / oc / efe;
    nhj--;
  }
  WHILE (ha || nhj > 6);
}

```

Answers

- A. 4 for statement coverage
- B. 5 for statement coverage
- C. 3 for statement coverage
- D. 2 for statement coverage
- E. 1 for statement coverage

Exercise 181

How many test cases are needed for statement coverage of the following code?

```

IF (s)
{
  o = 18;
  WHILE (jn || o > 10)
  {
    FOR (sap = 4; sap < 7; sap++)
    {
      pjy = 1 - nnc;
    }
    o--;
  }
}
FOR (xkj = 6; xkj > -1; xkj--)

```

```

{
  SWITCH (u)
  {
  CASE 0:
    ku = -18;
    DO
    {
      q = mgr * v1;
      ku++;
    }
    WHILE (cts || ku < -7);
    break;
  DEFAULT:
    SWITCH (n)
    {
    CASE 0:
      ma = per + qr + mu;
      break;
    CASE 1:
      fs = ybe / ctn;
      break;
    CASE 2:
      usz = dyz + jpt - xta;
      break;
    DEFAULT:
      gpx = z * gt;
      break;
    }
    break;
  }
}

```

Answers

- A. 7 for statement coverage
- B. 5 for statement coverage
- C. 6 for statement coverage
- D. 8 for statement coverage
- E. 9 for statement coverage

Exercise 182

How many test cases are needed for statement coverage of the following code?

```

a = a + 1;
IF (a == 0)
{
    b = a;
}

```

Answers

- A. 4 for statement coverage
- B. 1 for statement coverage
- C. 2 for statement coverage
- D. 5 for statement coverage
- E. 3 for statement coverage

Exercise 183

How many test cases are needed for statement coverage of the following code?

```

wkk = 3;
WHILE (sq || wkk > -8)
{
    IF (izq)
    {
        IF (f)
        {
            ns = w + b / gqk;
        }
    }
    wkk--;
}
FOR (es = 5; es < 10; es++)
{
    SWITCH (d)
    {
        CASE 0:
            jkv = 1;
            DO
            {
                p = ki + cu;
                jkv++;
            }
            WHILE (e || jkv < 5);
            break;
        DEFAULT:
            ei = 8;
            WHILE (ooj || ei > -3)
            {

```

```

    cc = aa / g / c;
    ei--;
}
break;
}
}

```

Answers

- A. 3 for statement coverage
- B. 4 for statement coverage
- C. 1 for statement coverage
- D. 2 for statement coverage
- E. 5 for statement coverage

Exercise 184

How many test cases are needed for statement coverage of the following code?

```

SWITCH (cqt)
{
    CASE 0:
    IF (e)
    {
        SWITCH (pze)
        {
            CASE 0:
                a = c - x;
                break;
            CASE 1:
                pp = ken * oqi;
                break;
            DEFAULT:
                oav = uwt * zg;
                break;
        }
    }
    break;
    CASE 1:
    tx = -14;
    WHILE (ahs || tx < -9)
    {
        zt = nea + pis / nbg;
        tx++;
    }
    break;
    DEFAULT:

```

```

IF (zku)
{
    osj = sjm * ko;
}
ELSE
{
    xz = 0;
    WHILE (tgm || xz < 8)
    {
        lxv = 1 + xui - idy;
        xz++;
    }
}
break;
}
FOR (h = -6; h > -15; h--)
{
    IF (upd)
    {
        FOR (tms = -3; tms > -7; tms--)
        {
            q = gla + vo;
        }
    }
}

```

Answers

- A. 3 for statement coverage
- B. 2 for statement coverage
- C. 5 for statement coverage
- D. 6 for statement coverage
- E. 7 for statement coverage

Exercise 185

How many test cases are needed for statement coverage of the following code?

```

ggq = 3;
WHILE (c || ggq > -5)
{
    IF (t)
    {
        IF (olq)
        {
            v = mbh / fo / euw;
        }
    }
}

```



```

ELSE
{
    yun = oqa + ey - dq;
}
}
ggq--;
}
IF (z)
{
    i = cz / r;
}

```

Answers

- A. 2 for statement coverage
- B. 5 for statement coverage
- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 1 for statement coverage

Exercise 186

How many test cases are needed for statement coverage of the following code?

```

FOR (p = 4; p > 1; p--)
{
    r1 = 7;
    DO
    {
        q = 11;
        DO
        {
            fol = z / gq / g;
            q--;
        }
        WHILE (lr || q > 7);
        r1--;
    }
    WHILE (dd || r1 > -5);
}
u = e * ff + fd;

```

Answers

- A. 1 for statement coverage
- B. 5 for statement coverage
- C. 2 for statement coverage

D. 4 for statement coverage

E. 3 for statement coverage

Exercise 187

How many test cases are needed for statement coverage of the following code?

```

va = -1;
DO
{
    if = 6;
    WHILE (v || if > 0)
    {
        FOR (wy = 7; wy < 16; wy++)
        {
            eh = ho - rb;
        }
        if--;
    }
    va--;
}
WHILE (gmj || va > -7);
IF (m)
{
    IF (o)
    {
        FOR (sec = -5; sec < -3; sec++)
        {
            zz = jq - vr - by;
        }
    }
}
ELSE
{
    np = 6;
    DO
    {
        FOR (r = -8; r < 2; r++)
        {
            ilx = sx - 1;
        }
        np--;
    }
    WHILE (bqw || np > 3);
}

```

Answers

- A. 2 for statement coverage
- B. 1 for statement coverage
- C. 3 for statement coverage
- D. 5 for statement coverage
- E. 4 for statement coverage

Exercise 188

How many test cases are needed for statement coverage of the following code?

```
FOR (wg = 9; wg > 1; wg--)
{
    IF (s)
    {
        FOR (be = -1; be < 2; be++)
        {
            za = n * hm - rj;
        }
    }
    ELSE
    {
        SWITCH (rne)
        {
            CASE 0:
                jk = m * y;
                break;
            CASE 1:
                r = nv + pvr;
                break;
            DEFAULT:
                dff = qo / w;
                break;
        }
    }
}
e = oij - lg;
```

Answers

- A. 1 for statement coverage
- B. 4 for statement coverage
- C. 3 for statement coverage
- D. 5 for statement coverage
- E. 2 for statement coverage

Exercise 189

How many test cases are needed for statement coverage of the following code?

```

IF (gx)
{
    whi = 16;
    DO
    {
        IF (fvg)
        {
            g = oa + ef + c;
        }
        whi--;
    }
    WHILE (r || whi > 5);
}
ELSE
{
    IF (k)
    {
        IF (ffn)
        {
            nw = pd * xiy;
        }
    }
}
yyk = 0;
DO
{
    SWITCH (1x)
    {
        CASE 0:
            SWITCH (1)
            {
                CASE 0:
                    rnr = vb * e;
                    break;
                CASE 1:
                    f = h + y - xw;
                    break;
                CASE 2:
                    opp = tw / pxa;
                    break;
                DEFAULT:
                    iu = fe - gr - upg;
                    break;
            }
        break;
    }
}

```

```

DEFAULT:
    zno = 4;
    WHILE (jv || zno > -5)
    {
        m = i * p - w;
        zno--;
    }
    break;
}
yyk--;
}
WHILE (trs || yyk > -7);

```

Answers

- A. 5 for statement coverage
- B. 6 for statement coverage
- C. 3 for statement coverage
- D. 7 for statement coverage
- E. 4 for statement coverage

Exercise 190

How many test cases are needed for statement coverage of the following code?

```

IF (im)
{
    SWITCH (d)
    {
        CASE 0:
            u = -3;
            DO
            {
                lo = v / gyp;
                u++;
            }
            WHILE (ph || u < 5);
            break;
        CASE 1:
            IF (se)
            {
                o = np / xx - sl;
            }
            break;
        DEFAULT:
            ys = r / n / dv;
            break;
    }
}

```

```
    }  
  }  
  IF (yt)  
  {  
    IF (in)  
    {  
      FOR (ioq = 5; ioq > -6; ioq--)  
      {  
        h = urz - kmd;  
      }  
    }  
    ELSE  
    {  
      byd = aah + yea;  
    }  
  }  
  ELSE  
  {  
    FOR (b = -6; b > -11; b--)  
    {  
      IF (mh)  
      {  
        ix = vg - dmf;  
      }  
    }  
  }  
}
```

Answers

- A. 1 for statement coverage
- B. 5 for statement coverage
- C. 4 for statement coverage
- D. 3 for statement coverage
- E. 2 for statement coverage

Exercise 191

How many test cases are needed for statement coverage of the following code?

```

j = 3;
WHILE (xj || j > -6)
{
    SWITCH (k)
    {
    CASE 0:
        lcx = 10;
        DO
        {
            aj = jyv + ess;
            lcx--;
        }
        WHILE (rfa || lcx > 6);
        break;
    CASE 1:
        FOR (huk = 3; huk < 10; huk++)
        {
            ix = fy * l * c;
        }
        break;
    CASE 2:
        q = -12;
        WHILE (h || q < -6)
        {
            xsa = udp * idn + pss;
            q++;
        }
        break;
    DEFAULT:
        FOR (soe = -4; soe > -6; soe--)
        {
            d = soh - e;
        }
        break;
    }
    j--;
}
eh = -13;
DO
{
    SWITCH (z)
    {
    CASE 0:
        omn = -2;
        DO

```

```

    {
    dq = avp * a;
    omn--;
    }
    WHILE (it || omn > -7);
    break;
CASE 1:
    FOR (emx = 5; emx < 11; emx++)
    {
    ypg = nkq / r * lq;
    }
    break;
CASE 2:
    pg = 18;
    WHILE (zb || pg > 8)
    {
    ord = lb + rw;
    pg--;
    }
    break;
DEFAULT:
    IF (cy)
    {
    p = xs - n - ji;
    }
    break;
}
eh++;
}
WHILE (ss || eh < -5);
IF (fcc)
{
    IF (f)
    {
    FOR (hu = -6; hu < 3; hu++)
    {
        nay = nwz * vij;
    }
    }
}
}

```

Answers

- A. 7 for statement coverage
- B. 5 for statement coverage
- C. 6 for statement coverage

D. 4 for statement coverage

E. 3 for statement coverage

Exercise 192

How many test cases are needed for statement coverage of the following code?

```

IF (ri)
{
    FOR (hmg = 6; hmg > 0; hmg--)
    {
        FOR (at = -5; at < -2; at++)
        {
            x = f - z;
        }
    }
}
ELSE
{
    vmi = 7;
    DO
    {
        SWITCH (yf)
        {
            CASE 0:
                yqq = n - i / okx;
                break;
            CASE 1:
                ph = kjx * p + bd;
                break;
            DEFAULT:
                r = jtf - d - tpt;
                break;
        }
        vmi--;
    }
    WHILE (kzx || vmi > -3);
}
w = 3;
WHILE (y || w > -5)
{
    u = vrq / b / hm;
    w--;
}
IF (iz)
{

```

```

vwv = 12;
WHILE (wvm || vwv > 0)
{
    psv = 9;
    DO
    {
        myq = ej + lm - v;
        psv--;
    }
    WHILE (au || psv > 3);
    vwv--;
}
}

```

Answers

- A. 2 for statement coverage
- B. 1 for statement coverage
- C. 4 for statement coverage
- D. 5 for statement coverage
- E. 3 for statement coverage

Exercise 193

How many test cases are needed for statement coverage of the following code?

```

FOR (o = 3; o > -2; o--)
{
    SWITCH (tkg)
    {
        CASE 0:
            v = -13;
            DO
            {
                ni = b / ybq - s;
                v++;
            }
            WHILE (mt || v < -7);
            break;
        CASE 1:
            IF (n)
            {
                c = r - lu - tut;
            }
            break;
        DEFAULT:
            rvi = 0;
    }
}

```

```

    DO
    {
        fhp = kvx * d;
        rvi++;
    }
    WHILE (waf || rvi < 10);
    break;
}
}
yo = 1 / bzg * tfm;
FOR (ren = -3; ren < 3; ren++)
{
    IF (tc)
    {
        IF (ecs)
        {
            i = e * vzu;
        }
        ELSE
        {
            lhn = lgs - ut / lnt;
        }
    }
    ELSE
    {
        sxd = -7;
        DO
        {
            tv = k + am + ud;
            sxd++;
        }
        WHILE (zu || sxd < 3);
    }
}

```

Answers

- A. 1 for statement coverage
- B. 3 for statement coverage
- C. 5 for statement coverage
- D. 4 for statement coverage
- E. 2 for statement coverage

Exercise 194

How many test cases are needed for statement coverage of the following code?

```

FOR (eti = -1; eti > -4; eti--)
{
    IF (pe)
    {
        SWITCH (bx)
        {
            CASE 0:
                c = qs / qe / zig;
                break;
            CASE 1:
                iuo = gjz - uq;
                break;
            DEFAULT:
                z = f / yne;
                break;
        }
    }
}
FOR (rep = -8; rep > -15; rep--)
{
    qin = qw * uyn + fo;
}
myn = -1;
WHILE (nx || myn < 4)
{
    d = 5;
    DO
    {
        IF (i)
        {
            uic = eq / oaa;
        }
    }
    ELSE
    {
        kp = xkg * ntu / hgk;
    }
    d--;
}
WHILE (azl || d > -1);
myn++;
}

```

Answers

- A. 3 for statement coverage
- B. 5 for statement coverage

C. 2 for statement coverage

D. 4 for statement coverage

E. 6 for statement coverage

Exercise 195

How many test cases are needed for statement coverage of the following code?

```
IF (irf)
{
    IF (d)
    {
        IF (e)
        {
            vf = ts + p;
        }
    }
    ELSE
    {
        SWITCH (xdv)
        {
            CASE 0:
            cy = qpt - box;
            break;
            CASE 1:
            i = kbs + vw;
            break;
            DEFAULT:
            yb = x + g;
            break;
        }
    }
}
dx = an - mq - j;
IF (hel)
{
    SWITCH (nu)
    {
        CASE 0:
        SWITCH (qru)
        {
            CASE 0:
            fj = k - qz;
            break;
            DEFAULT:
            wz = lz - nrw;
```

```

        break;
    }
    break;
CASE 1:
    zit = ucz - csz;
    break;
DEFAULT:
    IF (r)
    {
        qy = z * ak - q;
    }
    ELSE
    {
        t = ef - m / fjn;
    }
    break;
}
}
ELSE
{
    pc = -11;
    DO
    {
        txs = vj * ar / jat;
        pc++;
    }
    WHILE (ok || pc < -3);
}

```

Answers

- A. 3 for statement coverage
- B. 5 for statement coverage
- C. 4 for statement coverage
- D. 2 for statement coverage
- E. 6 for statement coverage

Exercise 196

How many test cases are needed for statement coverage of the following code?

```

id = -11;
WHILE (yuy || id < -3)
{
    FOR (fh = -8; fh < -3; fh++)
    {
        SWITCH (pn)
        {
            CASE 0:
                lj = vp + ngw * pi;
                break;
            DEFAULT:
                ljw = hs * xpo;
                break;
        }
    }
    id++;
}
ui = 3;
DO
{
    ieg = -14;
    DO
    {
        q = -15;
        WHILE (oqh || q < -9)
        {
            z = bt - jf;
            q++;
        }
        ieg++;
    }
    WHILE (pe || ieg < -4);
    ui--;
}
WHILE (vu || ui > -9);
v = -12;
DO
{
    ex = -2;
    DO
    {
        IF (lrk)
        {
            zsqa = pwa - xz;
        }
    }
}

```

```

    ex++;
}
WHILE (of || ex < 7);
v++;
}
WHILE (fvw || v < -6);

```

Answers

- A. 3 for statement coverage
- B. 1 for statement coverage
- C. 2 for statement coverage
- D. 4 for statement coverage
- E. 5 for statement coverage

Exercise 197

How many test cases are needed for statement coverage of the following code?

```

IF (q)
{
    pq = 6;
    DO
    {
        SWITCH (zeh)
        {
            CASE 0:
                m = tx + jc;
                break;
            DEFAULT:
                wi = gk + dju / uc;
                break;
        }
        pq--;
    }
    WHILE (pcn || pq > 2);
}
FOR (he = -6; he < 1; he++)
{
    fki = qi / mx * c;
}
g = -3;
DO
{
    IF (sa)
    {
        SWITCH (in)

```



```

{
    CASE 0:
        me = xv - r - x;
        break;
    CASE 1:
        pz = ufl / lfg;
        break;
    CASE 2:
        t = mta + z + tjl;
        break;
    DEFAULT:
        xvt = cu - f;
        break;
}
}
ELSE
{
    qqj = -4;
    WHILE (xug || qqj > -7)
    {
        mm = xam * ty + vco;
        qqj--;
    }
}
g++;
}
WHILE (j || g < 4);

```

Answers

- A. 5 for statement coverage
- B. 6 for statement coverage
- C. 8 for statement coverage
- D. 9 for statement coverage
- E. 4 for statement coverage

Exercise 198

How many test cases are needed for statement coverage of the following code?

```
FOR (ola = 4; ola < 12; ola++)
{
    IF (rx)
    {
        smf = qp * y / ptv;
    }
    ELSE
    {
        IF (e)
        {
            ua = h / lrm * mt;
        }
    }
}
IF (mx)
{
    FOR (f = 1; f < 11; f++)
    {
        FOR (pqc = 2; pqc > -6; pqc--)
        {
            wy = alr * k + cpv;
        }
    }
}
ELSE
{
    IF (nb)
    {
        FOR (ql = -8; ql < -1; ql++)
        {
            hso = ef * ibz;
        }
    }
}
IF (wj)
{
    ni = -2;
    WHILE (r || ni > -6)
    {
        IF (cyk)
        {
            ic = g + j;
        }
    }
    ELSE
    {
```

```

        cad = 1 + rgw - d;
    }
    ni--;
}
}

```

Answers

- A. 3 for statement coverage
- B. 2 for statement coverage
- C. 1 for statement coverage
- D. 5 for statement coverage
- E. 4 for statement coverage

Exercise 199

How many test cases are needed for statement coverage of the following code?

```

IF (1)
{
    dtq = 13;
    WHILE (ejo || dtq > 4)
    {
        IF (h)
        {
            vit = aow - ms + p;
        }
        dtq--;
    }
}
ELSE
{
    xko = -9;
    DO
    {
        IF (rxg)
        {
            a = hms / h1 + jld;
        }
        ELSE
        {
            km = r * ewh;
        }
        xko++;
    }
    WHILE (yx || xko < 2);
}

```

```

nbj = -4;
DO
{
    yei = -9;
    WHILE (ud || yei < 1)
    {
        FOR (hmf = 10; hmf > 1; hmf--)
        {
            nn = prk * nf;
        }
        yei++;
    }
    nbj++;
}
WHILE (t || nbj < 3);
IF (cv1)
{
    IF (vq)
    {
        IF (erf)
        {
            g = y + uh;
        }
    }
    ELSE
    {
        d = w / j;
    }
}
}

```

Answers

- A. 3 for statement coverage
- B. 6 for statement coverage
- C. 2 for statement coverage
- D. 5 for statement coverage
- E. 4 for statement coverage

Exercise 200

How many test cases are needed for statement coverage of the following code?

```

IF (b)
{
    zd = -4;
    DO
    {
        FOR (llc = -7; llc < 2; llc++)
        {
            m = ne - o;
        }
        zd++;
    }
    WHILE (vkp || zd < 8);
}
ELSE
{
    SWITCH (gl)
    {
        CASE 0:
            IF (fy)
            {
                tge = x + q * k;
            }
            ELSE
            {
                yys = le / gc;
            }
            break;
        CASE 1:
            FOR (l = -3; l < 5; l++)
            {
                bwm = nak - nmp;
            }
            break;
        DEFAULT:
            FOR (jbo = 7; jbo > -2; jbo--)
            {
                kf = kpc * sob;
            }
            break;
    }
}
SWITCH (ain)
{
    CASE 0:
        yx = 14;

```

```
DO
{
    py = -12;
    WHILE (syg || py < -1)
    {
        kn = as * xlu;
        py++;
    }
    yx--;
}
WHILE (a || yx > 8);
break;
CASE 1:
SWITCH (vs)
{
    CASE 0:
        aj = 12;
        WHILE (j || aj > 6)
        {
            okf = h * lba - hy;
            aj--;
        }
        break;
    CASE 1:
        ooo = sf / n * qt;
        break;
    CASE 2:
        IF (ya)
        {
            juf = xkj / kxh;
        }
        ELSE
        {
            e = xz + dh;
        }
        break;
    DEFAULT:
        SWITCH (eag)
        {
            CASE 0:
                ze = cwd * yu;
                break;
            CASE 1:
                f = omg * giu - buy;
                break;
```

```

    DEFAULT:
        izb = iw / tg + cf;
        break;
    }
    break;
}
break;
DEFAULT:
    lkh = ab * dcf + vbg;
    break;
}
SWITCH (iue)
{
    CASE 0:
        px = 14;
        WHILE (xx || px > 3)
        {
            pvj = ip - qab + zec;
            px--;
        }
        break;
    CASE 1:
        SWITCH (ye)
        {
            CASE 0:
                IF (abp)
                {
                    ob = cb / efr + ppo;
                }
                break;
            CASE 1:
                xqc = -4;
                WHILE (bm || xqc < 2)
                {
                    qy = blh * fw;
                    xqc++;
                }
                break;
            DEFAULT:
                nw = saz / qh;
                break;
        }
        break;
    DEFAULT:
        IF (vtf)

```

```
{
  oiw = 3;
  DO
  {
    akw = mx * ny / tog;
    oiw++;
  }
  WHILE (ywg || oiw < 6);
}
break;
```

Answers

- A. 10 for statement coverage
- B. 9 for statement coverage
- C. 6 for statement coverage
- D. 7 for statement coverage
- E. 5 for statement coverage

Chapter 4. Decision coverage

There are a number of definitions for decision and branch in the „Standard glossary of terms used in Software Testing” and “ISTQB Certified Tester. Foundation Level Syllabus”. Decision coverage and branch coverage are equal when you reach 100% level coverage.

- * branch: A basic block that can be selected for execution based on a program construct in which one of two or more alternative program paths is available, e.g. case, jump, go to, if-then- else.

- * branch coverage: The percentage of branches that have been exercised by a test suite. 100% branch coverage implies both 100% decision coverage and 100% statement coverage.

- * branch testing: A white box test design technique in which test cases are designed to execute branches.

- * decision: A program point at which the control flow has two or more alternative routes. A node with two or more links to separate branches.

- * decision coverage: The percentage of decision outcomes that have been exercised by a test suite. 100% decision coverage implies both 100% branch coverage and 100% statement coverage.

- * decision testing: A white box test design technique in which test cases are designed to execute decision outcomes.

- * decision outcome: The result of a decision (which therefore determines the branches to be taken).

Decision coverage, related to branch testing, is the assessment of the percentage of decision outcomes (e.g. the TRUE and FALSE options of an IF statement) that have been exercised by a test case suite. Decision testing derives test cases to execute specific decision outcomes, normally to increase decision coverage. Decision testing is a form of control flow testing as it generates a specific flow of control through the decision points. Decision coverage is stronger than statement coverage: 100% decision coverage guarantees 100% statement coverage, but not vice versa. 100% branch coverage implies 100% decision coverage.

Exercises

Exercise 201

How many test cases are needed for decision coverage of the following code?

```
IF (jwo)
{
    wo = tnd + c / opf;
}
```

Answers

- A. 4 for decision coverage
- B. 3 for decision coverage
- C. 5 for decision coverage
- D. 2 for decision coverage
- E. 1 for decision coverage

Exercise 202

How many test cases are needed for decision coverage of the following code?

```
qdh = -6;  
WHILE (z || qdh < 4)  
{  
    jm = r + olu;  
    qdh++;  
}
```

Answers

- A. 1 for decision coverage
- B. 4 for decision coverage
- C. 2 for decision coverage
- D. 3 for decision coverage
- E. 5 for decision coverage

Exercise 203

How many test cases are needed for decision coverage of the following code?

```
SWITCH (A)  
{  
    CASE 0:  
        jch = z - zn + x;  
        break;  
    CASE 1:  
        kf = d / nrw * gsw;  
        break;  
    DEFAULT:  
        wfw = j + lj;  
        break;  
}
```

Answers

- A. 2 for decision coverage
- B. 1 for decision coverage
- C. 4 for decision coverage
- D. 5 for decision coverage
- E. 3 for decision coverage

Exercise 204

How many test cases are needed for decision coverage of the following code?

```
y = 13;
WHILE (qk || y > 5)
{
    cpn = cnc - fi / zt;
    y--;
}
```

Answers

- A. 3 for decision coverage
- B. 5 for decision coverage
- C. 1 for decision coverage
- D. 4 for decision coverage
- E. 2 for decision coverage

Exercise 205

How many test cases are needed for decision coverage of the following code?

```
a = a + b - c;
```

Answers

- A. 2 for decision coverage
- B. 4 for decision coverage
- C. 3 for decision coverage
- D. 1 for decision coverage
- E. 5 for decision coverage

Exercise 206

How many test cases are needed for decision coverage of the following code?

```
IF (a > 0)
{
    a = pi + jyd / o;
}
ELSE
{
    a = pi - zq;
}
```

Answers

- A. 2 for decision coverage
- B. 3 for decision coverage
- C. 5 for decision coverage

D. 4 for decision coverage

E. 1 for decision coverage

Exercise 207

How many test cases are needed for decision coverage of the following code?

```
IF (pi > 0)
{
    pi = pi / o;
}
SWITCH (yjf)
{
    CASE 0:
        yro = w / uua * zx;
        break;
    CASE 1:
        zg = u - awc;
        break;
    DEFAULT:
        xo = jlw + nhe + pxf;
        break;
}
```

Answers

A. 4 for decision coverage

B. 6 for decision coverage

C. 2 for decision coverage

D. 5 for decision coverage

E. 3 for decision coverage

Exercise 208

How many test cases are needed for decision coverage of the following code?

```
FOR (y = 3; y > 0; y--)
{
    wa = tk - x + y;
}
```

Answers

A. 4 for decision coverage

B. 5 for decision coverage

C. 2 for decision coverage

D. 3 for decision coverage

E. 1 for decision coverage

Exercise 209

How many test cases are needed for decision coverage of the following code?

```
p = -5;  
DO  
{  
    d = rt / a * kdz;  
    p--;  
}  
WHILE (z || p > -8);
```

Answers

- A. 1 for decision coverage
- B. 2 for decision coverage
- C. 5 for decision coverage
- D. 4 for decision coverage
- E. 3 for decision coverage

Exercise 210

How many test cases are needed for decision coverage of the following code?

```
td = 2;  
DO  
{  
    y = ntU + pf;  
    td++;  
}  
WHILE (p || td < 5);  
td = td + td * ntU;
```

Answers

- A. 3 for decision coverage
- B. 5 for decision coverage
- C. 2 for decision coverage
- D. 4 for decision coverage
- E. 1 for decision coverage

Exercise 211

How many test cases are needed for decision coverage of the following code?

```
IF (a > 0)
{
    a = r / w + qy;
}
ELSE
{
    a = zt + e - ca;
}
```

Answers

- A. 5 for decision coverage
- B. 1 for decision coverage
- C. 2 for decision coverage
- D. 4 for decision coverage
- E. 3 for decision coverage

Exercise 212

How many test cases are needed for decision coverage of the following code?

```
FOR (p = 9; p > 5; p--)
{
    q = q + g;
}
```

Answers

- A. 1 for decision coverage
- B. 5 for decision coverage
- C. 3 for decision coverage
- D. 2 for decision coverage
- E. 4 for decision coverage

Exercise 213

How many test cases are needed for decision coverage of the following code?

```
IF (i > 0)
{
    j = i + a;
}
```

Answers

- A. 3 for decision coverage
- B. 4 for decision coverage
- C. 2 for decision coverage

D. 1 for decision coverage

E. 5 for decision coverage

Exercise 214

How many test cases are needed for decision coverage of the following code?

```
FOR (ohq = 5; ohq > -2; ohq--)  
{  
    ai = nw / k;  
}
```

Answers

A. 2 for decision coverage

B. 4 for decision coverage

C. 5 for decision coverage

D. 1 for decision coverage

E. 3 for decision coverage

Exercise 215

How many test cases are needed for decision coverage of the following code?

```
b = 10  
d = 20  
  
FOR (c = 0; c < 10; c++)  
{  
    a = b * d;  
}
```

Answers

A. 3 for decision coverage

B. 4 for decision coverage

C. 2 for decision coverage

D. 5 for decision coverage

E. 1 for decision coverage

Exercise 216

How many test cases are needed for decision coverage of the following code?

```
oz = 17;  
WHILE (1dt || oz > 6)  
{  
    rb = vp / s;  
    oz--;  
}
```

Answers

- A. 5 for decision coverage
- B. 1 for decision coverage
- C. 3 for decision coverage
- D. 4 for decision coverage
- E. 2 for decision coverage

Exercise 217

How many test cases are needed for decision coverage of the following code?

```
a = b + d;  
SWITCH (c)  
{  
    CASE 0:  
        iww = pw + v;  
        break;  
    CASE 1:  
        o = avx - cg / w;  
        break;  
    DEFAULT:  
        voe = wa + vnj;  
        break;  
}
```

Answers

- A. 1 for decision coverage
- B. 3 for decision coverage
- C. 4 for decision coverage
- D. 2 for decision coverage
- E. 5 for decision coverage

Exercise 218

How many test cases are needed for decision coverage of the following code?


```
rc = -18;
WHILE (ky || rc < -6)
{
    zk = yf - lqs / wsq;
    rc++;
}
```

Answers

- A. 4 for decision coverage
- B. 5 for decision coverage
- C. 2 for decision coverage
- D. 1 for decision coverage
- E. 3 for decision coverage

Exercise 219

How many test cases are needed for decision coverage of the following code?

```
SWITCH (1)
{
    CASE 0:
        ws = na * mq / lv;
        break;
    DEFAULT:
        ip = ow + sva;
        break;
}
```

Answers

- A. 3 for decision coverage
- B. 6 for decision coverage
- C. 4 for decision coverage
- D. 2 for decision coverage
- E. 5 for decision coverage

Exercise 220

How many test cases are needed for decision coverage of the following code?

```
m = 12;
DO
{
    sdj = bwt + jne / s;
    m--;
}
WHILE (ncz || m > 5);
```

Answers

- A. 5 for decision coverage
- B. 2 for decision coverage
- C. 4 for decision coverage
- D. 1 for decision coverage
- E. 3 for decision coverage

Exercise 221

How many test cases are needed for decision coverage of the following code?

```
e = ox1 - p;
u = e + ox1;
```

Answers

- A. 5 for decision coverage
- B. 4 for decision coverage
- C. 1 for decision coverage
- D. 2 for decision coverage
- E. 3 for decision coverage

Exercise 222

How many test cases are needed for decision coverage of the following code?

```
bdk = qg - iv;
bck = -9;
DO
{
    pv = ttt - z * b;
    bck++;
}
WHILE (p || bck < 3);
```

Answers

- A. 5 for decision coverage
- B. 3 for decision coverage

- C. 1 for decision coverage
- D. 2 for decision coverage
- E. 4 for decision coverage

Exercise 223

How many test cases are needed for decision coverage of the following code?

```
jk = 0;
DO
{
    af = yd + odb;
    jk++;
}
WHILE (yb || jk < 9);
IF (d)
{
    st = ciu + y / 11;
}
ELSE
{
    g = sym * cwe;
}
```

Answers

- A. 4 for decision coverage
- B. 2 for decision coverage
- C. 5 for decision coverage
- D. 1 for decision coverage
- E. 3 for decision coverage

Exercise 224

How many test cases are needed for decision coverage of the following code?

```
f = -12;
DO
{
    axq = m / kp;
    f++;
}
WHILE (ea || f < -5);
FOR (npx = 5; npx < 13; npx++)
{
    h = p * iq;
}
```

Answers

- A. 1 for decision coverage
- B. 3 for decision coverage
- C. 2 for decision coverage
- D. 4 for decision coverage
- E. 5 for decision coverage

Exercise 225

How many test cases are needed for decision coverage of the following code?

```
IF (ex)
{
    w = axc + scv * ei;
}
ELSE
{
    l = ck * wsl / fl;
}
IF (wg)
{
    gr = qb * h - x;
}
ELSE
{
    emh = hy - e - gu;
}
```

Answers

- A. 1 for decision coverage
- B. 2 for decision coverage
- C. 5 for decision coverage
- D. 3 for decision coverage
- E. 4 for decision coverage

Exercise 226

How many test cases are needed for decision coverage of the following code?

```
IF (hp)
{
    soj = vn + wxj * yip;
}
FOR (gmj = 9; gmj < 15; gmj++)
{
    a = n / onj * mja;
}
```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 1 for decision coverage
- D. 3 for decision coverage
- E. 4 for decision coverage

Exercise 227

How many test cases are needed for decision coverage of the following code?

```
FOR (a = 8; a < 16; a++)
{
    bef = o - n + brb;
}
FOR (bc = -8; bc > -19; bc--)
{
    ivw = jab * gal + wee;
}
```

Answers

- A. 4 for decision coverage
- B. 3 for decision coverage
- C. 5 for decision coverage
- D. 2 for decision coverage
- E. 1 for decision coverage

Exercise 228

How many test cases are needed for decision coverage of the following code?

```
IF (1)
{
    tp = lbs + dj;
}
sr = -1;
WHILE (iu || sr < 9)
{
    xxc = g * abu;
    sr++;
}
```

Answers

- A. 3 for decision coverage
- B. 1 for decision coverage
- C. 2 for decision coverage
- D. 4 for decision coverage
- E. 5 for decision coverage

Exercise 229

How many test cases are needed for decision coverage of the following code?

```
FOR (rjp = -5; rjp > -11; rjp--)
{
    tma = k1 * dva;
}
nic = 18;
DO
{
    dvm = dg / g;
    nic--;
}
WHILE (yq || nic > 6);
```

Answers

- A. 1 for decision coverage
- B. 4 for decision coverage
- C. 3 for decision coverage
- D. 5 for decision coverage
- E. 2 for decision coverage

Exercise 230

How many test cases are needed for decision coverage of the following code?

```

s = b + dg + bi;
IF (dn)
{
    pz = y * kv * j;
}

```

Answers

- A. 4 for decision coverage
- B. 1 for decision coverage
- C. 5 for decision coverage
- D. 3 for decision coverage
- E. 2 for decision coverage

Exercise 231

How many test cases are needed for decision coverage of the following code?

```

czp = j * ub;
fv = -7;
DO
{
    cv = wz * wx / ov;
    fv++;
}
WHILE (fm || fv < -4);

```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 3 for decision coverage
- E. 1 for decision coverage

Exercise 232

How many test cases are needed for decision coverage of the following code?

```

WHILE (ma || gjh < -8)
{
    qft = j / uei * u;
    gjh++;
}
DO
{
    a = k / r - sw;
    d--;
}

```

```

}
WHILE (dz || d > -4);

```

Answers

- A. 4 for decision coverage
- B. 3 for decision coverage
- C. 5 for decision coverage
- D. 2 for decision coverage
- E. 1 for decision coverage

Exercise 233

How many test cases are needed for decision coverage of the following code?

```

IF (x > 0)
{
    gfd = ibr + h;
}
WHILE (vd || x < 9)
{
    d = jfs * g;
    x++;
}

```

Answers

- A. 1 for decision coverage
- B. 4 for decision coverage
- C. 5 for decision coverage
- D. 3 for decision coverage
- E. 2 for decision coverage

Exercise 234

How many test cases are needed for decision coverage of the following code?

```

WHILE (ynm || j < -6)
{
    idg = q / sf;
    j++;
}
IF (j < -6)
{
    r = jrg / le;
}
ELSE
{

```



```
    ont = y + nx + t;  
}
```

Answers

- A. 2 for decision coverage
- B. 4 for decision coverage
- C. 6 for decision coverage
- D. 3 for decision coverage
- E. 5 for decision coverage

Exercise 235

How many test cases are needed for decision coverage of the following code?

```
IF (tzo > 10)  
{  
    p = w - loe / r;  
}  
IF (tzo < 10)  
{  
    xag = hb / kf;  
}  
ELSE  
{  
    ehh = 1 * z / wp;  
}
```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 1 for decision coverage
- D. 3 for decision coverage
- E. 4 for decision coverage

Exercise 236

How many test cases are needed for decision coverage of the following code?

```
pxi = -10;
DO
{
    hkf = bq / qf + m;
    pxi++;
}
WHILE (k1 || pxi < -3);
pxi = pxi * wxa - bt;
```

Answers

- A. 2 for decision coverage
- B. 4 for decision coverage
- C. 1 for decision coverage
- D. 3 for decision coverage
- E. 5 for decision coverage

Exercise 237

How many test cases are needed for decision coverage of the following code?

```
sde = 2
ov = 4
cr = 10
ja = cr - ov + sde;
WHILE (uiu || ja > -3)
{
    p = a * dew * xe;
    ja--;
}
```

Answers

- A. 3 for decision coverage
- B. 4 for decision coverage
- C. 1 for decision coverage
- D. 2 for decision coverage
- E. 5 for decision coverage

Exercise 238

How many test cases are needed for decision coverage of the following code?

```
wnf = -1
n = 15;
WHILE (wnf > 0 || n > 3)
{
    j = uu + z - e;
    n--;
}
iau = q + kvd / xp;
```

Answers

- A. 3 for decision coverage
- B. 1 for decision coverage
- C. 4 for decision coverage
- D. 5 for decision coverage
- E. 2 for decision coverage

Exercise 239

How many test cases are needed for decision coverage of the following code?

```
wla;
gzs;
lf;
SWITCH (iel)
{
    CASE 0:
        wla = x * si;
        break;
    CASE 1:
        gzs = tm * uda;
        break;
    DEFAULT:
        lh = odg + rzx;
        break;
}
```

Answers

- A. 5 for decision coverage
- B. 7 for decision coverage
- C. 4 for decision coverage
- D. 3 for decision coverage
- E. 6 for decision coverage

Exercise 240

How many test cases are needed for decision coverage of the following code?

```
IF (zsb)
{
    rne = tp + jis;
}
FOR (rne = 3; rne > 0; rne--)
{
    xu = j * bn;
}
```

Answers

- A. 1 for decision coverage
- B. 4 for decision coverage
- C. 5 for decision coverage
- D. 3 for decision coverage
- E. 2 for decision coverage

Exercise 241

How many test cases are needed for decision coverage of the following code?

```
WHILE (tk > 8)
{
    py = zm / ye;
    tk--;
}
FOR (v1b = -4; v1b > -12; v1b--)
{
    w = m / f;
}
```

Answers

- A. 2 for decision coverage
- B. 4 for decision coverage
- C. 1 for decision coverage
- D. 5 for decision coverage
- E. 3 for decision coverage

Exercise 242

How many test cases are needed for decision coverage of the following code?

```

IF (x < 99)
{
    y = x - 99;
}
x = 4;
WHILE (x < 7)
{
    sop = hnj * qoy;
    x++;
}

```

Answers

- A. 4 for decision coverage
- B. 1 for decision coverage
- C. 5 for decision coverage
- D. 2 for decision coverage
- E. 3 for decision coverage

Exercise 243

How many test cases are needed for decision coverage of the following code?

```

vki = 1;
DO
{
    mao = q - d;
    vki--;
}
WHILE (vki < 99 && vki > 0);
IF (vki > 1)
{
    kk = k * qy - tgu;
}

```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 1 for decision coverage
- D. 3 for decision coverage
- E. 4 for decision coverage

Exercise 244

How many test cases are needed for decision coverage of the following code?

```

IF (uz < 5)
{
    k = it - hxv / shq;
}
ELSE
{
    ik = vv * jua;
}
uz = 5;
WHILE (jh || uz > 1)
{
    ldo = fm + s / at;
    uz--;
}

```

Answers

- A. 1 for decision coverage
- B. 2 for decision coverage
- C. 3 for decision coverage
- D. 4 for decision coverage
- E. 5 for decision coverage

Exercise 245

How many test cases are needed for decision coverage of the following code?

```

IF (z > 0)
{
    wtw = nff * x;
}
ELSE
{
    xu = s * tod;
}
IF (z =< 0)
{
    bbr = qo / d;
}
ELSE
{
    ho = e - qfr * mql;
}

```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage

- C. 3 for decision coverage
- D. 4 for decision coverage
- E. 1 for decision coverage

Exercise 246

How many test cases are needed for decision coverage of the following code?

```
SWITCH (tx)
{
    CASE 0:
        n1 = kg - p;
        break;
    CASE 1:
        z = pfw * e / nxw;
        break;
    DEFAULT:
        uch = sf + x;
        break;
}
FOR (r = 6; r < 9; r++)
{
    cb = omy + u - fg;
}
```

Answers

- A. 5 for decision coverage
- B. 7 for decision coverage
- C. 6 for decision coverage
- D. 3 for decision coverage
- E. 8 for decision coverage

Exercise 247

How many test cases are needed for decision coverage of the following code?

```
le;
nb;
FOR (x = 9; x < 11; x++)
{
    y = le * nb;
}
x = 20;
WHILE (y > 10)
{
    nft = s + m;
    y--;
}
```

Answers

- A. 2 for decision coverage
- B. 3 for decision coverage
- C. 4 for decision coverage
- D. 1 for decision coverage
- E. 5 for decision coverage

Exercise 248

How many test cases are needed for decision coverage of the following code?

```
WHILE (eve || zfn > -6)
{
    lu = m / bi * uc;
    zfn--;
}
IF (znf > 0)
{
    zxi = kq / tb / uf;
}
```

Answers

- A. 4 for decision coverage
- B. 1 for decision coverage
- C. 3 for decision coverage
- D. 2 for decision coverage
- E. 5 for decision coverage

Exercise 249

How many test cases are needed for decision coverage of the following code?

```
IF (eke)
{
    xs = um + sbp / qlg;
}
IF (ek)
{
    gi = db - bnc;
}
```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage

D. 6 for decision coverage

E. 3 for decision coverage

Exercise 250

How many test cases are needed for decision coverage of the following code?

```
o = zus + fxe - f;  
DO  
{  
    a = i + bp;  
    fu--;  
}  
WHILE (h || fu > 5);
```

Answers

A. 3 for decision coverage

B. 5 for decision coverage

C. 2 for decision coverage

D. 1 for decision coverage

E. 4 for decision coverage

Exercise 251

How many test cases are needed for decision coverage of the following code?

```
dum = dum * (-1);  
IF (dum > 0)  
{  
    mk = mz1 / knj * h;  
}  
ELSE  
{  
    j1 = mgt / yry / kd;  
}
```

Answers

A. 2 for decision coverage

B. 3 for decision coverage

C. 4 for decision coverage

D. 6 for decision coverage

E. 5 for decision coverage

Exercise 252

How many test cases are needed for decision coverage of the following code?

```

eob = 13;
DO
{
    ob = 1 / m;
    eob--;
}
WHILE (rk || eob > 9);

IF (ob >= 1)
{
    eau = w + fnn;
}

```

Answers

- A. 1 for decision coverage
- B. 2 for decision coverage
- C. 3 for decision coverage
- D. 4 for decision coverage
- E. 5 for decision coverage

Exercise 253

How many test cases are needed for decision coverage of the following code?

```

IF (sux > 0)
{
    x1 = bab;
}
WHILE (rjs || x1 < 10)
{
    u = q / sux * c;
    x1++;
}

```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 1 for decision coverage
- E. 3 for decision coverage

Exercise 254

How many test cases are needed for decision coverage of the following code?

```

qn = -15;
DO
{
    q = oq - dx;
    qn++;
}
WHILE (r || qn < -5);
IF (hm)
{
    mc = zdm - jgt;
}
ELSE
{
    v = wfz / eot + u;
}

```

Answers

- A. 2 for decision coverage
- B. 3 for decision coverage
- C. 5 for decision coverage
- D. 1 for decision coverage
- E. 4 for decision coverage

Exercise 255

How many test cases are needed for decision coverage of the following code?

```

kux = bp / 1;
FOR (wci = 2; wci > -9; wci--)
{
    fdk = wci - 1;
}

```

Answers

- A. 3 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 1 for decision coverage
- E. 2 for decision coverage

Exercise 256

How many test cases are needed for decision coverage of the following code?

```
IF (xb > 10)
{
    vnw = tid + by;
}
FOR (xb = 6; xb < 9; xb++)
{
    yi = of + uhh;
}
```

Answers

- A. 4 for decision coverage
- B. 1 for decision coverage
- C. 2 for decision coverage
- D. 3 for decision coverage
- E. 5 for decision coverage

Exercise 257

How many test cases are needed for decision coverage of the following code?

```
e = -10;
DO
{
    hm = z + amq * cx;
    e--;
}
WHILE (tov || e > -8);
ry = w * nt / zrd;
```

Answers

- A. 3 for decision coverage
- B. 5 for decision coverage
- C. 2 for decision coverage
- D. 1 for decision coverage
- E. 4 for decision coverage

Exercise 258

How many test cases are needed for decision coverage of the following code?

```

SWITCH (an)
{
    CASE 0:
        d = a / wvc / bbm;
        break;
    DEFAULT:
        g = p / qq;
        break;
}
cbt = d + g;

```

Answers

- A. 4 for decision coverage
- B. 2 for decision coverage
- C. 6 for decision coverage
- D. 5 for decision coverage
- E. 7 for decision coverage

Exercise 259

How many test cases are needed for decision coverage of the following code?

```

IF (lt < 0)
{
    qic = zeu / g / q;
}
ELSE
{
    mu = ko - otr * i;
}
l = -3;
DO
{
    y = qh + ljt;
    l--;
}
WHILE (kqo || l > -9);

```

Answers

- A. 1 for decision coverage
- B. 4 for decision coverage
- C. 3 for decision coverage
- D. 2 for decision coverage
- E. 5 for decision coverage

Exercise 260

How many test cases are needed for decision coverage of the following code?

```
nex = eg * qxm - j;  
IF (me)  
{  
    kuc = fk / mo;  
}
```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 1 for decision coverage
- D. 4 for decision coverage
- E. 3 for decision coverage

Exercise 261

How many test cases are needed for decision coverage of the following code?

```
u = 15;  
WHILE (e || u > 3)  
{  
    FOR (z = -6; z > -8; z--)  
    {  
        ag = m * gf;  
    }  
    u--;  
}
```

Answers

- A. 5 for decision coverage
- B. 1 for decision coverage
- C. 4 for decision coverage
- D. 2 for decision coverage
- E. 3 for decision coverage

Exercise 262

How many test cases are needed for decision coverage of the following code?

```

DO
{
  IF (y > 0)
  {
    o = ima / tn;
  }
  y--;
}
WHILE (y > 2);

```

Answers

- A. 5 for decision coverage
- B. 4 for decision coverage
- C. 3 for decision coverage
- D. 1 for decision coverage
- E. 6 for decision coverage

Exercise 263

How many test cases are needed for decision coverage of the following code?

```

SWITCH (mp)
{
  CASE 0:
    v = 3;
    DO
    {
      r = dc * h + nk;
      v--;
    }
    WHILE (w || v > -8);
    break;
  CASE 1:
    IF (kpc)
    {
      i = u / g;
    }
    break;
  DEFAULT:
    IF (c)
    {
      nb = ts - 1;
    }
    ELSE
    {
      j = iv + y - hk;
    }
  }
}

```

```

    }
    break;
}

```

Answers

- A. 3 for decision coverage
- B. 5 for decision coverage
- C. 7 for decision coverage
- D. 4 for decision coverage
- E. 6 for decision coverage

Exercise 264

How many test cases are needed for decision coverage of the following code?

```

FOR (bf = 9; bf > 0; bf--)
{
    IF (nn < 0)
    {
        tra = ein * rst - b;
    }
    ++nn;
}

```

Answers

- A. 5 for decision coverage
- B. 3 for decision coverage
- C. 1 for decision coverage
- D. 4 for decision coverage
- E. 2 for decision coverage

Exercise 265

How many test cases are needed for decision coverage of the following code?

```

p = -5;
WHILE (s || p < 2)
{
    IF (q)
    {
        dbl = dz / zn;
        vqa = uo * id;
    }
    p++;
}

```


Answers

- A. 2 for decision coverage
- B. 4 for decision coverage
- C. 7 for decision coverage
- D. 6 for decision coverage
- E. 5 for decision coverage

Exercise 266

How many test cases are needed for decision coverage of the following code?

```
IF (c > 0)
{
    je = 13;
    DO
    {
        c = n++;
        je--;
    }
    WHILE (je > 5);
}
```

Answers

- A. 4 for decision coverage
- B. 3 for decision coverage
- C. 5 for decision coverage
- D. 1 for decision coverage
- E. 2 for decision coverage

Exercise 267

How many test cases are needed for decision coverage of the following code?

```
DO
{
    FOR (ldo = 2; ldo > -1; ldo--)
    {
        hqn = xe * s;
    }
    ut++;
}
WHILE (dn && ut < 8);
```

Answers

- A. 1 for decision coverage
- B. 2 for decision coverage

- C. 3 for decision coverage
- D. 5 for decision coverage
- E. 4 for decision coverage

Exercise 268

How many test cases are needed for decision coverage of the following code?

```
SWITCH (xoi)
{
    CASE 0:
        v = 0;
        DO
        {
            yjk = eid + tfj;
            v++;
        }
        WHILE (avb || v < 8);
        break;
    CASE 1:
        IF (y)
        {
            c = p * jql * bds;
        }
        ELSE
        {
            dbq = ri / fi;
        }
        break;
    DEFAULT:
        FOR (a = 1; a > -4; a--)
        {
            jq = t * ib;
        }
        break;
}
```

Answers

- A. 8 for decision coverage
- B. 6 for decision coverage
- C. 7 for decision coverage
- D. 5 for decision coverage
- E. 4 for decision coverage

Exercise 269

How many test cases are needed for decision coverage of the following code?

```

z = -20;
WHILE (z < -11)
{
    z = -15;
    WHILE (z < -13)
    {
        vzp = j + xys;
        z++;
    }
    z++;
}

```

Answers

- A. 1 for decision coverage
- B. 3 for decision coverage
- C. 4 for decision coverage
- D. 2 for decision coverage
- E. 5 for decision coverage

Exercise 270

How many test cases are needed for decision coverage of the following code?

```

ix = 14;
DO
{
    ugw = -9;
    WHILE (d || ugw < 1)
    {
        rn = iw / aq / n;
        ugw++;
    }
    ix--;
}
WHILE (cdp || ix > 3);

```

Answers

- A. 1 for decision coverage
- B. 5 for decision coverage
- C. 3 for decision coverage
- D. 4 for decision coverage
- E. 2 for decision coverage

Exercise 271

How many test cases are needed for decision coverage of the following code?

```

WHILE (cxm < -3 && pd < -3)
{
    c = y * e;
    pd++;
}

```

Answers

- A. 3 for decision coverage
- B. 2 for decision coverage
- C. 4 for decision coverage
- D. 5 for decision coverage
- E. 1 for decision coverage

Exercise 272

How many test cases are needed for decision coverage of the following code?

```

DO
{
    w = m * cay;
    vbv--;
}
WHILE vbv > 4);

```

Answers

- A. 5 for decision coverage
- B. 1 for decision coverage
- C. 4 for decision coverage
- D. 3 for decision coverage
- E. 2 for decision coverage

Exercise 273

How many test cases are needed for decision coverage of the following code?

```

IF (nh >= 0)
{
    IF (nh > 0)
    {
        xz = tpd - t + k;
    }
    ELSE
    {
        ono = mv / zjz;
    }
}

```

Answers

- A. 3 for decision coverage
- B. 4 for decision coverage
- C. 1 for decision coverage
- D. 5 for decision coverage
- E. 2 for decision coverage

Exercise 274

How many test cases are needed for decision coverage of the following code?

```
n = 7;
WHILE (pgu || n > -3)
{
    hy = -4;
    WHILE (x || hy < 6)
    {
        lvx = zf - rtc - s;
        hy++;
    }
    n--;
}
```

Answers

- A. 3 for decision coverage
- B. 5 for decision coverage
- C. 2 for decision coverage
- D. 1 for decision coverage
- E. 4 for decision coverage

Exercise 275

How many test cases are needed for decision coverage of the following code?

```
SWITCH (sp)
{
    CASE 0:
        hq = -4;
        WHILE (c || hq < 1)
        {
            eol = eq * f / roc;
            hq++;
        }
        break;
    CASE 1:
        IF (yxz)
```

```

    {
        apw = oz - wjo;
    }
    ELSE
    {
        lm = m * b;
    }
    break;
    DEFAULT:
        apw = oz - wjo;
    break;
}

```

Answers

- A. 6 for decision coverage
- B. 4 for decision coverage
- C. 3 for decision coverage
- D. 5 for decision coverage
- E. 2 for decision coverage

Exercise 276

How many test cases are needed for decision coverage of the following code?

```

DO
{
    aig = 18;
    DO
    {
        mya = vou / zkk;
        aig--;
    }
    WHILE (aig > 10);
    f++;
}
WHILE (f < -2);

```

Answers

- A. 5 for decision coverage
- B. 4 for decision coverage
- C. 1 for decision coverage
- D. 3 for decision coverage
- E. 2 for decision coverage

Exercise 277

How many test cases are needed for decision coverage of the following code?

```

qmz = 1;
DO
{
    IF (yv)
    {
        y = ucx - ru;
    }
    ELSE
    {
        zz = zv - vdk;
    }
    qmz++;
}
WHILE (1 || qmz < 9);

```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 1 for decision coverage
- E. 3 for decision coverage

Exercise 278

How many test cases are needed for decision coverage of the following code?

```

IF (w > 0)
{
    DO
    {
        yf = bb * eh;
        w++;
    }
    WHILE (w < 5);
}

```

Answers

- A. 3 for decision coverage
- B. 1 for decision coverage
- C. 2 for decision coverage
- D. 4 for decision coverage
- E. 5 for decision coverage

Exercise 279

How many test cases are needed for decision coverage of the following code?

```

IF (pv)
{
    f = 6;
    WHILE (v || f > -6)
    {
        nq = iey - ia * az;
        f--;
    }
}
ELSE
{
    FOR (1t = 8; 1t < 13; 1t++)
    {
        bz = wx / ez;
    }
}

```

Answers

- A. 5 for decision coverage
- B. 2 for decision coverage
- C. 3 for decision coverage
- D. 1 for decision coverage
- E. 4 for decision coverage

Exercise 280

How many test cases are needed for decision coverage of the following code?

```

DO
{
    ikb = 8;
    WHILE (cn || ikb > 5)
    {
        ogk = v + zf;
        ikb--;
    }
    kx--;
}
WHILE (kx > 2);

```

Answers

- A. 5 for decision coverage
- B. 1 for decision coverage
- C. 3 for decision coverage

D. 4 for decision coverage

E. 2 for decision coverage

Exercise 281

How many test cases are needed for decision coverage of the following code?

```
IF (c)
{
    IF (d)
    {
        IF (n)
        {
            uqa = osg - g;
        }
    }
}
```

Answers

A. 2 for decision coverage

B. 4 for decision coverage

C. 5 for decision coverage

D. 1 for decision coverage

E. 3 for decision coverage

Exercise 282

How many test cases are needed for decision coverage of the following code?

```
IF (lyv)
{
    gcj = j / cd * bdn;
}
ELSE
{
    IF (n)
    {
        uqa = osg - g;
    }
}
```

Answers

A. 2 for decision coverage

B. 3 for decision coverage

C. 4 for decision coverage

D. 1 for decision coverage

E. 5 for decision coverage

Exercise 283

How many test cases are needed for decision coverage of the following code?

```
FOR (ort = 6; ort < 13; ort++)
{
    IF (ort > 10)
    {
        st = f * m + c;
    }
}
```

Answers

A. 6 for decision coverage

B. 5 for decision coverage

C. 1 for decision coverage

D. 4 for decision coverage

E. 3 for decision coverage

Exercise 284

How many test cases are needed for decision coverage of the following code?

```
IF (c)
{
    IF (b)
    {
        v = 1 * hsd / tt;
    }
    ELSE
    {
        h = g + hvx - yc;
    }
}
ELSE
{
    SWITCH (gx)
    {
        CASE 0:
            mnn = zyc * qpv;
            break;
        CASE 1:
            kjh = bl + kx;
```

```
        break;
    DEFAULT:
        kpa = xjv - s;
        break;
    }
}
```

Answers

- A. 8 for decision coverage
- B. 3 for decision coverage
- C. 5 for decision coverage
- D. 7 for decision coverage
- E. 9 for decision coverage

Exercise 285

How many test cases are needed for decision coverage of the following code?

```
SWITCH (zq)
{
    CASE 0:
        vbv = uan - az + lqp;
        break;
    CASE 1:
        o = a - eg * mww;
        break;
    DEFAULT:
        o = a - mww;
        break;
}
```

Answers

- A. 6 for decision coverage
- B. 4 for decision coverage
- C. 5 for decision coverage
- D. 3 for decision coverage
- E. 7 for decision coverage

Exercise 286

How many test cases are needed for decision coverage of the following code?

```
yea = 9;
WHILE (r || yea > 2)
{
    IF (a)
    {
        g = o - fy;
    }
    yea--;
}
```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 1 for decision coverage
- E. 3 for decision coverage

Exercise 287

How many test cases are needed for decision coverage of the following code?

```
FOR (bkb = 9; bkb < 17; bkb++)
{
    FOR (jz = -5; jz < -2; jz++)
    {
        lwk = o / i - rjz;
    }
}
```

Answers

- A. 4 for decision coverage
- B. 1 for decision coverage
- C. 5 for decision coverage
- D. 3 for decision coverage
- E. 2 for decision coverage

Exercise 288

How many test cases are needed for decision coverage of the following code?

```

SWITCH (xgp)
{
    CASE 0:
        n11 = -7;
        WHILE (m || n11 < 3)
        {
            z = w * c / sgh;
            n11++;
        }
        break;
    CASE 1:
        IF (ke)
        {
            fa = k / x;
        }
        ELSE
        {
            a = ut - as;
        }
        break;
    CASE 2:
        SWITCH (gr1)
        {
            CASE 0:
                tik = cr + h1 - h;
                break;
            CASE 1:
                gx = p + prc;
                break;
            CASE 2:
                e = ols + egx;
                break;
            DEFAULT:
                tci = xdi / yk - jok;
                break;
        }
        break;
    DEFAULT:
        FOR (bys = -2; bys > -7; bys--)
        {
            u = g / t;
        }
        break;
}

```

Answers

- A. 9 for decision coverage
- B. 6 for decision coverage
- C. 7 for decision coverage
- D. 10 for decision coverage
- E. 8 for decision coverage

Exercise 289

How many test cases are needed for decision coverage of the following code?

```
ggq = 3;
WHILE (ggq > -5)
{
    IF (t)
    {
        IF (o1q)
        {
            v = mbh / fo / euw;
        }
        ELSE
        {
            yun = oqa + ey - dq;
        }
    }
    ggq--;
}
IF (z)
{
    i = cz / r;
}
```

Answers

- A. 5 for decision coverage
- B. 2 for decision coverage
- C. 1 for decision coverage
- D. 4 for decision coverage
- E. 3 for decision coverage

Exercise 290

How many test cases are needed for decision coverage of the following code?

```

IF (os == 1)
{
    os = os - 1 + dg;
    IF (os > 0)
    {
        a = zap + zux - g;
    }
    ELSE
    {
        k = yf / c - pp;
    }
}

```

Answers

- A. 6 for decision coverage
- B. 4 for decision coverage
- C. 3 for decision coverage
- D. 5 for decision coverage
- E. 2 for decision coverage

Exercise 291

How many test cases are needed for decision coverage of the following code?

```

FOR (fv = 4; fv < 13; fv++)
{
    IF (ft)
    {
        uja = q + srp;
    }
    ELSE
    {
        s = ws - lx * bz;
    }
}

```

Answers

- A. 2 for decision coverage
- B. 3 for decision coverage
- C. 5 for decision coverage
- D. 6 for decision coverage
- E. 4 for decision coverage

Exercise 292

How many test cases are needed for decision coverage of the following code?

```

y = 3;
WHILE (dz || y > -6)
{
    SWITCH (rm)
    {
        CASE 0:
            agu = dmt - q;
            break;
        CASE 1:
            nw = qw - cx - lj;
            break;
        CASE 2:
            ul = m / abk - ci;
            break;
        DEFAULT:
            rye = hvr + o - oi;
            break;
    }
    y--;
}

```

Answers

- A. 1 for decision coverage
- B. 2 for decision coverage
- C. 5 for decision coverage
- D. 4 for decision coverage
- E. 3 for decision coverage

Exercise 293

How many test cases are needed for decision coverage of the following code?

```

IF (kou)
{
    FOR (sp = -2; sp < 1; sp++)
    {
        cmb = g + vuf - ktm;
    }
}
ELSE
{
    ay = 6;
    WHILE (b || ay > -3)
    {
        v = ukq + i + pi;
        ay--;
    }
}

```



```

    }
}

```

Answers

- A. 2 for decision coverage
- B. 1 for decision coverage
- C. 5 for decision coverage
- D. 4 for decision coverage
- E. 3 for decision coverage

Exercise 294

How many test cases are needed for decision coverage of the following code?

```

IF (q == 1)
{
    IF (x < 0)
    {
        s = q;
    }
}
IF (s == 1)
{
    d = b i u * v;
}

```

Answers

- A. 3 for decision coverage
- B. 6 for decision coverage
- C. 4 for decision coverage
- D. 2 for decision coverage
- E. 5 for decision coverage

Exercise 295

How many test cases are needed for decision coverage of the following code?

```

IF (slx)
{
    IF (szh)
    {
        ob = tg + jp;
    }
}
IF (six)
{

```

```
IF (sah)
{
    bb = tg + jp;
}
}
```

Answers

- A. 5 for decision coverage
- B. 2 for decision coverage
- C. 3 for decision coverage
- D. 1 for decision coverage
- E. 4 for decision coverage

Exercise 296

How many test cases are needed for decision coverage of the following code?

```
IF (at)
{
    FOR (j = -9; j < 1; j++)
    {
        lhk = gev * k * suu;
    }
}
ELSE
{
    IF (zxq)
    {
        ocl = ze / e - y;
    }
}
```

Answers

- A. 5 for decision coverage
- B. 7 for decision coverage
- C. 3 for decision coverage
- D. 6 for decision coverage
- E. 4 for decision coverage

Exercise 297

How many test cases are needed for decision coverage of the following code?

```

IF (yv > 0)
{
    DO
    {
        rgq = xlo - k;
        xo++;
    }
    WHILE (xo < 1);
}

```

Answers

- A. 3 for decision coverage
- B. 5 for decision coverage
- C. 6 for decision coverage
- D. 2 for decision coverage
- E. 4 for decision coverage

Exercise 298

How many test cases are needed for decision coverage of the following code?

```

l = -10;
DO
{
    zq = hx1 / f + tf;
    l++;
}
WHILE (w || l < -5);
l = -15;
DO
{
    sq = hx1 / f * tf;
    l++;
}
WHILE (w || l < -5);
l = -20;
DO
{
    cq = hx1 / f - tf;
    l++;
}
WHILE (w || l < -5);

```

Answers

- A. 5 for decision coverage
- B. 4 for decision coverage

- C. 1 for decision coverage
- D. 3 for decision coverage
- E. 2 for decision coverage

Exercise 299

How many test cases are needed for decision coverage of the following code?

```

IF (t)
{
    SWITCH (wd1)
    {
        CASE 0:
            o = d - rw / dn;
            break;
        CASE 1:
            m = k + efj - ddr;
            break;
        CASE 2:
            jih = xzy - c;
            break;
        DEFAULT:
            o = xzy - c;
            break;
    }
}
ELSE
{
    j = 3;
    WHILE (wlv || j < 6)
    {
        pg = b / lv / cu;
        j++;
    }
}

```

Answers

- A. 4 for decision coverage
- B. 5 for decision coverage
- C. 2 for decision coverage
- D. 1 for decision coverage
- E. 3 for decision coverage

Exercise 300

How many test cases are needed for decision coverage of the following code?

```

FOR (qo = -5; qo < 2; qo++)
{
    SWITCH (qo)
    {
        CASE 0:
            bqz = izi - gs;
            break;
        CASE 1:
            ova = ilo + bfd;
            break;
        DEFAULT:
            dsy = ffg / c - gc;
            break;
    }
}

```

Answers

- A. 5 for decision coverage
- B. 2 for decision coverage
- C. 6 for decision coverage
- D. 1 for decision coverage
- E. 4 for decision coverage

Exercise 301

How many test cases are needed for decision coverage of the following code?

```

IF (ps)
{
    du = qoi / t;
}
go = -9;
DO
{
    IF (n)
    {
        w1 = r - c;
    }
    ELSE
    {
        owp = sy * ld;
    }
    go++;
}
WHILE (mna || go < 3);

```

Answers

- A. 4 for decision coverage
- B. 1 for decision coverage
- C. 2 for decision coverage
- D. 5 for decision coverage
- E. 3 for decision coverage

Exercise 302

How many test cases are needed for decision coverage of the following code?

```
WHILE (o > 3)
{
    SWITCH (hq)
    {
        CASE 0:
            n = p + nb;
            break;
        CASE 1:
            ikw = t + csw;
            break;
        DEFAULT:
            m = n + csw;
            break;
    }
    o--;
}
o = m * n * ikw;
```

Answers

- A. 4 for decision coverage
- B. 3 for decision coverage
- C. 6 for decision coverage
- D. 5 for decision coverage
- E. 2 for decision coverage

Exercise 303

How many test cases are needed for decision coverage of the following code?

```

WHILE (fis > -7)
{
  FOR (esi = -8; esi > -13; esi--)
  {
    nt = f - ip;
  }
  fis--;
}
p = g - yw;

```

Answers

- A. 4 for decision coverage
- B. 1 for decision coverage
- C. 2 for decision coverage
- D. 3 for decision coverage
- E. 5 for decision coverage

Exercise 304

How many test cases are needed for decision coverage of the following code?

```

ef = -16;
WHILE (b || ef < -6)
{
  uxe = nnm + jon / j;
  ef++;
}
FOR (rrt = -8; rrt > -15; rrt--)
{
  v = 1;
  DO
  {
    f = aqr / htt * nl;
    v--;
  }
  WHILE (ju || v > -6);
}

```

Answers

- A. 1 for decision coverage
- B. 2 for decision coverage
- C. 4 for decision coverage
- D. 3 for decision coverage
- E. 5 for decision coverage

Exercise 305

How many test cases are needed for decision coverage of the following code?

```

IF (g < 0)
{
    SWITCH (rn)
    {
        CASE 0:
            ai = yk + qyn;
            break;
        CASE 1:
            v = smy + zsr - kmy;
            break;
        DEFAULT:
            xsu = i + d;
            break;
    }
}
g = 14;
DO
{
    gy = 3;
    WHILE (b || gy > -8)
    {
        ylb = q + wpu / ud;
        gy--;
    }
    g--;
}
WHILE (doj || g > 10);

```

Answers

- A. 4 for decision coverage
- B. 5 for decision coverage
- C. 1 for decision coverage
- D. 2 for decision coverage
- E. 3 for decision coverage

Exercise 306

How many test cases are needed for decision coverage of the following code?


```

fn = -13;
WHILE (y || fn < -3)
{
    IF (ds)
    {
        j = hzz / lxi - h;
    }
    fn++;
}
c = 19;
WHILE (ut || c > 8)
{
    FOR (a = -6; a < 0; a++)
    {
        k = rdz * gm;
    }
    c--;
}

```

Answers

- A. 3 for decision coverage
- B. 2 for decision coverage
- C. 4 for decision coverage
- D. 1 for decision coverage
- E. 5 for decision coverage

Exercise 307

How many test cases are needed for decision coverage of the following code?

```

WHILE (wf > -8)
{
    IF (xb)
    {
        s = 1 + mqj;
    }
    ELSE
    {
        doz = mm / iyv;
    }
    wf--;
}
IF (xrw)
{
    IF (r)
    {

```

```

    evr = jjm * vh;
}
}

```

Answers

- A. 5 for decision coverage
- B. 2 for decision coverage
- C. 1 for decision coverage
- D. 4 for decision coverage
- E. 3 for decision coverage

Exercise 308

How many test cases are needed for decision coverage of the following code?

```

FOR (fqj = 7; fqj > 1; fqj--)
{
    wqk = 9;
    WHILE (1 || wqk > 5)
    {
        y = q * mtf;
        wqk--;
    }
}
djw = 14;
DO
{
    IF (as)
    {
        khv = f / t / yyz;
    }
    djw--;
}
WHILE (eg || djw > 4);

```

Answers

- A. 4 for decision coverage
- B. 5 for decision coverage
- C. 2 for decision coverage
- D. 1 for decision coverage
- E. 3 for decision coverage

Exercise 309

How many test cases are needed for decision coverage of the following code?

```

z = fyk + fun * nvt;
IF (zye)
{
    SWITCH (p)
    {
        CASE 0:
            xck = etq / nb;
            break;
        CASE 1:
            f = cth + cv;
            break;
        CASE 2:
            n = vt + a * d;
            break;
        DEFAULT:
            xcw = etq / b;
            break;
    }
}
ELSE
{
    IF (bnp)
    {
        low = yh - i * eya;
    }
    ELSE
    {
        nv1 = ddw + js;
    }
}

```

Answers

- A. 5 for decision coverage
- B. 9 for decision coverage
- C. 7 for decision coverage
- D. 6 for decision coverage
- E. 8 for decision coverage

Exercise 310

How many test cases are needed for decision coverage of the following code?

```

SWITCH (bbh)
{
    CASE 0:
        IF (sy)
        {
            me = ppe / mwu;
        }
        ELSE
        {
            hr = r1 - cs;
        }
        break;
    CASE 1:
        FOR (cm = -6; cm > -11; cm--)
        {
            c = o + sg;
        }
        break;
    CASE 2:
        IF (z)
        {
            ia = vr - ih - e;
        }
        break;
    DEFAULT:
        IF (bii)
        {
            nd = mrh - h - i;
        }
        ELSE
        {
            yad = m / q / u;
        }
        break;
}
ij = ui + ubm;

```

Answers

- A. 6 for decision coverage
- B. 4 for decision coverage
- C. 7 for decision coverage
- D. 5 for decision coverage
- E. 8 for decision coverage

Exercise 311

How many test cases are needed for decision coverage of the following code?

```
ho = 1;
FOR (gyr = 2; gyr < 8; gyr++)
{
    oj = g * ezq + k;
    ho--;
}
IF (ha > 0 || ho < 0)
{
    oj = -7;
    DO
    {
        o = opu * qbt / wr;
        oj++;
    }
    WHILE (lm || oj < 4);
}
ELSE
{
    awh = 7;
    WHILE (awh > 3)
    {
        h = pcc - ltg + rb;
        awh--;
    }
}
```

Answers

- A. 5 for decision coverage
- B. 3 for decision coverage
- C. 4 for decision coverage
- D. 1 for decision coverage
- E. 2 for decision coverage

Exercise 312

How many test cases are needed for decision coverage of the following code?

```

i = sw / wd;
g = i / wd;
DO
{
    IF (n)
    {
        q = lx * z;
    }
    ELSE
    {
        ro = br / gwn;
    }
    i++;
}
WHILE (i < -2);

```

Answers

- A. 4 for decision coverage
- B. 1 for decision coverage
- C. 3 for decision coverage
- D. 2 for decision coverage
- E. 5 for decision coverage

Exercise 313

How many test cases are needed for decision coverage of the following code?

```

IF (qt)
{
    kpn = f - mu + w;
    IF (u)
    {
        wla = -2;
        WHILE (rjk || wla < 8)
        {
            nr = t - ito * v;
            wla++;
        }
    }
}

```

Answers

- A. 2 for decision coverage
- B. 1 for decision coverage
- C. 4 for decision coverage

D. 5 for decision coverage

E. 3 for decision coverage

Exercise 314

How many test cases are needed for decision coverage of the following code?

```
IF (yix)
{
    SWITCH (nj)
    {
        CASE 0:
            hj = g - fz + jp;
            break;
        CASE 1:
            ng = qa + tu;
            break;
        CASE 2:
            rf = gq - n;
            break;
        DEFAULT:
            hj = g + fz + jp;
            break;
    }
}
IF (kkf)
{
    SWITCH (ys)
    {
        CASE 0:
            hx = k + jpx;
            break;
        CASE 1:
            m = c / vsb + krv;
            break;
        DEFAULT:
            ri = vi + ja * zho;
            break;
    }
}
ELSE
{
    zmv = 11;
    DO
    {
        hd = jdk + bae;
```

```

    zmv--;
}
WHILE (ywu || zmv > 4);
}

```

Answers

- A. 5 for decision coverage
- B. 4 for decision coverage
- C. 7 for decision coverage
- D. 9 for decision coverage
- E. 8 for decision coverage

Exercise 315

How many test cases are needed for decision coverage of the following code?

```

FOR (wcq = -7; wcq < -1; wcq++)
{
    IF (jg)
    {
        yq = ka * awf / ti;
    }
}
SWITCH (cta)
{
    CASE 0:
        IF (y1)
        {
            bbu = myd - xm;
        }
        ELSE
        {
            fmc = toa + oi;
        }
        break;
    CASE 1:
        IF (dpk)
        {
            swi = ax / lzu / pev;
        }
        ELSE
        {
            km = oej + ep;
        }
        break;
    CASE 2:

```



```

    sx = 12;
    WHILE (dj || sx > 3)
    {
        zf = guh - p;
        sx--;
    }
    break;
DEFAULT:
    SWITCH (ggl)
    {
        CASE 0:
            dk = c * vvn - h;
            break;
        CASE 1:
            bg = swm + kq * xl;
            break;
        CASE 2:
            bhm = cz / mkg / e;
            break;
        DEFAULT:
            pi = fhg - mi;
            break;
    }
    break;
}

```

Answers

- A. 11 for decision coverage
- B. 12 for decision coverage
- C. 9 for decision coverage
- D. 10 for decision coverage
- E. 13 for decision coverage

Exercise 316

How many test cases are needed for decision coverage of the following code?

```

IF (m)
{
    FOR (y = 10; y < 15; y++)
    {
        swd = oxi + go;
    }
}
ELSE
{

```

```

    j = adl * rtr;
}
SWITCH (c)
{
    CASE 0:
        vp = r - edo;
        break;
    CASE 1:
        m1 = -5;
        WHILE (wd || m1 > -8)
        {
            w = b + ht * d1;
            m1--;
        }
        break;
    DEFAULT:
        m = -5;
        WHILE (m > -8)
        {
            w = b - ht * d1;
            m--;
        }
        break;
}

```

Answers

- A. 3 for decision coverage
- B. 1 for decision coverage
- C. 4 for decision coverage
- D. 2 for decision coverage
- E. 5 for decision coverage

Exercise 317

How many test cases are needed for decision coverage of the following code?

```

ie = -8;
DO
{
    pwm = uom + nik / d;
    ie++;
}
WHILE (fn || ie < -1);
d1h = 8;
WHILE (k || d1h > 5)
{

```

```

    rqq = q - ka - rkh;
    dlh--;
}

```

Answers

- A. 4 for decision coverage
- B. 3 for decision coverage
- C. 2 for decision coverage
- D. 1 for decision coverage
- E. 5 for decision coverage

Exercise 318

How many test cases are needed for decision coverage of the following code?

```

SWITCH (nrg)
{
    CASE 0:
        afh = 1;
        WHILE (sv || afh > -6)
        {
            u = fd / p - jxe;
            afh--;
        }
        break;
    CASE 1:
        FOR (s = 2; s > -4; s--)
        {
            hj = nkq - ecf * xbm;
        }
        break;
    CASE 2:
        a = 10;
        DO
        {
            tal = z + g * b;
            a--;
        }
        WHILE (kv || a > -1);
        break;
    DEFAULT:
        akw = c / n + x;
        break;
}
SWITCH (hp)
{

```

```

CASE 0:
    IF (mi)
    {
        m = af - oow;
    }
    break;
CASE 1:
    cvd = gli * erz;
    break;
DEFAULT:
    IF (dnz)
    {
        jcm = nxg * hkk / dx;
    }
    ELSE
    {
        re = f + r;
    }
    break;
}

```

Answers

- A. 9 for decision coverage
- B. 5 for decision coverage
- C. 6 for decision coverage
- D. 8 for decision coverage
- E. 7 for decision coverage

Exercise 319

How many test cases are needed for decision coverage of the following code?

```
SWITCH (ki)
{
    CASE 0:
        SWITCH (euy)
        {
            CASE 0:
                fbj = ds - axf;
                break;
            CASE 1:
                rr = kym + qpj - ut;
                break;
            CASE 2:
                g = lur + fi;
                break;
```

```

        DEFAULT:
            hi = gs - vd * vq;
            break;
    }
    break;
CASE 1:
    IF (gqn)
    {
        xot = eqk / iv;
    }
    ELSE
    {
        ri = pw + rq * ic;
    }
    break;
CASE 2:
    SWITCH (vhw)
    {
        CASE 0:
            rn = wph * zj;
            break;
        CASE 1:
            yox = ktt - fpj;
            break;
        DEFAULT:
            mg = y + rf - fiv;
            break;
    }
    break;
DEFAULT:
    p = ywt / e / frr;
    break;
}
IF (rlv)
{
    FOR (pr = -2; pr > -10; pr--)
    {
        s = qtv / u;
    }
}
ELSE
{
    bq = 12;
    DO
    {

```

```

    mcm = btk * hdh;
    bq--;
}
WHILE (tdi || bq > 6);
}

```

Answers

- A. 11 for decision coverage
- B. 10 for decision coverage
- C. 9 for decision coverage
- D. 12 for decision coverage
- E. 13 for decision coverage

Exercise 320

How many test cases are needed for decision coverage of the following code?

```

IF (d)
{
    qk = 12;
    WHILE (vg || qk > 7)
    {
        ue = u / phd;
        qk--;
    }
}
ELSE
{
    SWITCH (j)
    {
        CASE 0:
            i = qtd + h + dsj;
            break;
        CASE 1:
            t1k = bkg + sj + ij;
            break;
        CASE 2:
            sgf = vs / e / cva;
            break;
        DEFAULT:
            a = xn / o;
            break;
    }
}
ta = -5;
DO

```

```

{
  IF (yq)
  {
    t = f - vt;
  }
  ELSE
  {
    cuc = c + pbk * zxr;
  }
  ta++;
}
WHILE (py || ta < 0);

```

Answers

- A. 4 for decision coverage
- B. 5 for decision coverage
- C. 6 for decision coverage
- D. 8 for decision coverage
- E. 7 for decision coverage

Exercise 321

How many test cases are needed for decision coverage of the following code?

```

IF (wh)
{
  j = -15;
  WHILE (ak || j < -6)
  {
    igm = hvk * cbj;
    j++;
  }
}
ELSE
{
  yd = zw * omd / yn;
}
dy = nq - bp;

```

Answers

- A. 4 for decision coverage
- B. 5 for decision coverage
- C. 3 for decision coverage
- D. 2 for decision coverage
- E. 1 for decision coverage

Exercise 322

How many test cases are needed for decision coverage of the following code?

```
qr = 8;
WHILE (f || qr > -4)
{
    rp = nu * t / m;
    qr--;
}
hg = -12;
DO
{
    SWITCH (zs)
    {
        CASE 0:
            fpv = xt / mgr;
            break;
        CASE 1:
            ud = h / y - fyh;
            break;
        DEFAULT:
            ud = h / y + fyh;
            break;
    }
    hg++;
}
WHILE (umk || hg < -5);
```

Answers

- A. 1 for decision coverage
- B. 3 for decision coverage
- C. 2 for decision coverage
- D. 4 for decision coverage
- E. 5 for decision coverage

Exercise 323

How many test cases are needed for decision coverage of the following code?


```

nx = 11;
WHILE (wj || nx > 0)
{
    k = -15;
    WHILE (gno || k < -3)
    {
        kjk = ump + td * nn;
        k++;
    }
    nx--;
}
edi = -2;
DO
{
    bj = -5;
    DO
    {
        fz = x * kju;
        bj--;
    }
    WHILE (zmy || bj > -9);
    edi++;
}
WHILE (xfw || edi < 4);

```

Answers

- A. 1 for decision coverage
- B. 4 for decision coverage
- C. 2 for decision coverage
- D. 5 for decision coverage
- E. 3 for decision coverage

Exercise 324

How many test cases are needed for decision coverage of the following code?

```

IF (ijv)
{
    IF (buj)
    {
        m = wv - nzx * jn;
    }
    ELSE
    {
        q = uf * vn1;
    }
}

```

```

}
ELSE
{
    ey = -7;
    WHILE (ow || ey < -3)
    {
        ok = xc / cq - sgp;
        ey++;
    }
}
i = 11;
DO
{
    lw = u + t;
    i--;
}
WHILE (xun || i > 6);

```

Answers

- A. 2 for decision coverage
- B. 4 for decision coverage
- C. 3 for decision coverage
- D. 5 for decision coverage
- E. 1 for decision coverage

Exercise 325

How many test cases are needed for decision coverage of the following code?

```

IF (o)
{
    IF (ea)
    {
        h = v - t1 * vh;
    }
    ELSE
    {
        ni = fsf * ih / dp;
    }
}
SWITCH (iy)
{
    CASE 0:
        c = -2;
        WHILE (qp || c < 7)
        {

```

```

        i = tv * gww + ivm;
        c++;
    }
    break;
CASE 1:
    lk = -5;
    WHILE (dq || lk < 2)
    {
        ytp = usk + lhs / s;
        lk++;
    }
    break;
}

```

Answers

- A. 2 for decision coverage
- B. 4 for decision coverage
- C. 3 for decision coverage
- D. 1 for decision coverage
- E. 5 for decision coverage

Exercise 326

How many test cases are needed for decision coverage of the following code?

```

IF (q)
{
    IF (b)
    {
        xjs = e - l * rh;
    }
    ELSE
    {
        bny = v / ew;
    }
}
SWITCH (wz)
{
    CASE 0:
        vp = qn / y;
        break;
    CASE 1:
        IF (ha)
        {
            euo = p - vj;
        }
}

```

```

    ELSE
    {
        ovr = eky + nxp;
    }
    break;
CASE 2:
    IF (jo)
    {
        z = tu - g + a;
    }
    break;
DEFAULT:
    SWITCH (wy)
    {
        CASE 0:
            mji = ufn * dpe / s;
            break;
        CASE 1:
            f = j + mya;
            break;
        DEFAULT:
            wgi = c * k;
            break;
    }
    break;
}

```

Answers

- A. 8 for decision coverage
- B. 12 for decision coverage
- C. 11 for decision coverage
- D. 9 for decision coverage
- E. 10 for decision coverage

Exercise 327

How many test cases are needed for decision coverage of the following code?

```

FOR (zcy = 6; zcy > -2; zcy--)
{
    yir = 18;
    DO
    {
        v = ihh / imu * j;
        yir--;
    }
    WHILE (woe || yir > 9);
}
o = -5;
DO
{
    IF (n)
    {
        e = njc / nq;
    }
    ELSE
    {
        b = xge / ax;
    }
    o++;
}
WHILE (rf || o < 7);

```

Answers

- A. 3 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 2 for decision coverage
- E. 1 for decision coverage

Exercise 328

How many test cases are needed for decision coverage of the following code?

```

IF (qwh)
{
    SWITCH (s)
    {
        CASE 0:
            sdr = a + zi * ir;
            break;
        CASE 1:
            rm = lb + gs * p;
            break;
    }
}

```

```

        DEFAULT:
            rn = a + zi * ir;
            break;
    }
}
SWITCH (hgc)
{
    CASE 0:
        IF (u)
        {
            lpr = w + cih * i;
        }
        break;
    CASE 1:
        qn = -5;
        WHILE (hj || qn < 7)
        {
            d = mhp * zfc;
            qn++;
        }
        break;
    DEFAULT:
        qmj = 0;
        DO
        {
            j = g / uk;
            qmj++;
        }
        WHILE (t || qmj < 3);
        break;
}

```

Answers

- A. 7 for decision coverage
- B. 3 for decision coverage
- C. 4 for decision coverage
- D. 5 for decision coverage
- E. 6 for decision coverage

Exercise 329

How many test cases are needed for decision coverage of the following code?

```

ee = -6;
DO
{
    SWITCH (ee)
    {
        CASE 0:
            fyf = cmj - v / ixc;
            break;
        CASE 1:
            rw = aur - okc * dc;
            break;
        CASE 2:
            m = rt * p;
            break;
        DEFAULT:
            f = t;
            break;
    }
    ee++;
}
WHILE (ee < 6);
WHILE (dan < 1)
{
    sga = 17;
    DO
    {
        h = w / ci / enn;
        sga--;
    }
    WHILE (awv || sga > 7);
    dan++;
}

```

Answers

- A. 3 for decision coverage
- B. 1 for decision coverage
- C. 6 for decision coverage
- D. 5 for decision coverage
- E. 4 for decision coverage

Exercise 330

How many test cases are needed for decision coverage of the following code?

```

j = 15;
DO
{
    IF (zeu)
    {
        ly = bcn - pz / uhe;
    }
    ELSE
    {
        y = i + vrr;
    }
    j--;
}
WHILE (zc || j > 8);
FOR (c = -6; c > -10; c--)
{
    SWITCH (rx)
    {
        CASE 0:
            is = vsj + b * um;
            break;
        CASE 1:
            ps = g / ap - na;
            break;
        CASE 2:
            ky = zd + ny;
            break;
        DEFAULT:
            pcq = kzh - zq;
            break;
    }
}

```

Answers

- A. 3 for decision coverage
- B. 7 for decision coverage
- C. 4 for decision coverage
- D. 6 for decision coverage
- E. 5 for decision coverage

Exercise 331

How many test cases are needed for decision coverage of the following code?


```

y = 12;
DO
{
    IF (oeh)
    {
        mut = e * l * m;
    }
    ELSE
    {
        tvw = c / ucx / szz;
    }
    y--;
}
WHILE (fu || y > 1);
IF (rr)
{
    IF (gxh)
    {
        xsd = mev - cox - akt;
    }
    ELSE
    {
        uip = x - jxj * qlr;
    }
}

```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 3 for decision coverage
- E. 1 for decision coverage

Exercise 332

How many test cases are needed for decision coverage of the following code?

```

IF (n)
{
    FOR (ks = 0; ks < 5; ks++)
    {
        t = ld - z;
    }
}
FOR (th = -7; th < 1; th++)
{

```

```

ne = -8;
WHILE (yp || ne < -3)
{
    kh = vy + tna;
    ne++;
}
}

```

Answers

- A. 3 for decision coverage
- B. 4 for decision coverage
- C. 2 for decision coverage
- D. 1 for decision coverage
- E. 5 for decision coverage

Exercise 333

How many test cases are needed for decision coverage of the following code?

```

y = -13;
DO
{
    IF (c)
    {
        z = ew + ipy;
    }
    ELSE
    {
        l = s - p;
    }
    y++;
}
WHILE (oma || y < -7);
iu = 10;
DO
{
    IF (e)
    {
        yp = fyu - ab;
    }
    iu--;
}
WHILE (b || iu > 6);

```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 6 for decision coverage
- D. 4 for decision coverage
- E. 3 for decision coverage

Exercise 334

How many test cases are needed for decision coverage of the following code?

```
x = t * wy * h;  
FOR (kso = -4; kso < 2; kso++)  
{  
    IF (x == 1)  
    {  
        d = nn / kc;  
    }  
    ELSE  
    {  
        vk = bo / fi;  
    }  
}
```

Answers

- A. 3 for decision coverage
- B. 2 for decision coverage
- C. 4 for decision coverage
- D. 5 for decision coverage
- E. 1 for decision coverage

Exercise 335

How many test cases are needed for decision coverage of the following code?

```
dtv = 8;  
WHILE (ba || dtv > 3)  
{  
    SWITCH (bu)  
    {  
        CASE 0:  
            b = mqg * gjf - uab;  
            break;  
        CASE 1:  
            jns = p * crj + c;  
            break;  
        CASE 2:  

```

```

        w = sow / r;
        break;
    DEFAULT:
        mb = u + ofm;
        break;
    }
    dty--;
}
IF (tto)
{
    IF (y)
    {
        IF (y)
        {
            z = hr + yu;
        }
    }
}

```

Answers

- A. 4 for decision coverage
- B. 6 for decision coverage
- C. 3 for decision coverage
- D. 5 for decision coverage
- E. 8 for decision coverage

Exercise 336

How many test cases are needed for decision coverage of the following code?

```

FOR (ls = 3; ls < 12; ls++)
{
    WHILE (a > 4)
    {
        tzt = ck / qf - rwi;
        a--;
        ls++;
    }
}

```

Answers

- A. 1 for decision coverage
- B. 5 for decision coverage
- C. 3 for decision coverage

D. 2 for decision coverage

E. 4 for decision coverage

Exercise 337

How many test cases are needed for decision coverage of the following code?

```

IF (s)
{
    tjv = 15;
    WHILE (ay || tjv > 10)
    {
        uc = d - j * g;
        tjv--;
    }
}
IF (rnm)
{
    tg = -4;
    DO
    {
        c = oah - m;
        tg++;
    }
    WHILE (osb || tg < 8);
}
ELSE
{
    SWITCH (pmn)
    {
        CASE 0:
            mj1 = ii + h - n;
            break;
        CASE 1:
            u = vy / v + od;
            break;
        CASE 2:
            t = aed - eph;
            break;
        DEFAULT:
            iba = f / rop;
            break;
    }
}

```

Answers

- A. 5 for decision coverage
- B. 7 for decision coverage
- C. 4 for decision coverage
- D. 8 for decision coverage
- E. 6 for decision coverage

Exercise 338

How many test cases are needed for decision coverage of the following code?

```

SWITCH (s)
{
    CASE 0:
        SWITCH (mvj)
        {
            CASE 0:
                ir = x + z;
                break;
            CASE 1:
                se = lgc * n;
                break;
            CASE 2:
                ftp = pm / hz * a;
                break;
            DEFAULT:
                http = hz * a;
                break;
        }
        break;
    CASE 1:
        ypl = -9;
        WHILE (hbh || ypl < -2)
        {
            xm = nnh + uv1 + ie;
            ypl++;
        }
        break;
    DEFAULT:
        ypl = 0;
        break;
}
IF (uif)
{
    tyi = 2;
    WHILE (u || tyi > -4)
    {

```

```

        i = tk / olp;
        tyi--;
    }
}

```

Answers

- A. 4 for decision coverage
- B. 7 for decision coverage
- C. 5 for decision coverage
- D. 3 for decision coverage
- E. 6 for decision coverage

Exercise 339

How many test cases are needed for decision coverage of the following code?

```

FOR (r = 2; r < 9; r++)
{
    mbm = 0;
    bvr = 3;
    DO
    {
        jz = qy / c * hqp;
        bvr++;
    }
    WHILE (m || bvr < 7);
}
DO
{
    f = seh - an * t;
    mbm++;
}
WHILE (mbm < -6);

```

Answers

- A. 1 for decision coverage
- B. 2 for decision coverage
- C. 4 for decision coverage
- D. 5 for decision coverage
- E. 3 for decision coverage

Exercise 340

How many test cases are needed for decision coverage of the following code?

```

xo = -1;
WHILE (i || xo < 9)
{
    eub = 10;
    WHILE (af || eub > 2)
    {
        m = oa - 1 + zz;
        eub--;
    }
    xo++;
}
FOR (pkr = -5; pkr > -14; pkr--)
{
    IF (vo)
    {
        wey = tq - e;
    }
}

```

Answers

- A. 1 for decision coverage
- B. 2 for decision coverage
- C. 5 for decision coverage
- D. 3 for decision coverage
- E. 4 for decision coverage

Exercise 341

How many test cases are needed for decision coverage of the following code?

```

WHILE (wi < 5)
{
    SWITCH (hwf)
    {
        CASE 0:
            ly = x + z / xu;
            break;
        CASE 1:
            pd = va * hn;
            break;
        DEFAULT:
            fos = 0;
            break;
    }
    wi++;
}

```



```
SWITCH (fos)
{
    CASE 0:
        SWITCH (mkj)
        {
            CASE 0:
                hx = e + oxn;
                break;
            CASE 1:
                sae = xc * d;
                break;
            DEFAULT:
                se = c * sd;
                break;
        }
        break;
    CASE 1:
        IF (c)
        {
            r = b * mu;
        }
        break;
    DEFAULT:
        ae = xac * ad;
        break;
}
```

Answers

- A. 7 for decision coverage
- B. 3 for decision coverage
- C. 4 for decision coverage
- D. 6 for decision coverage
- E. 5 for decision coverage

Exercise 342

How many test cases are needed for decision coverage of the following code?

```

SWITCH (hvq)
{
    CASE 0:
        FOR (lio = 1; lio > -8; lio--)
        {
            u = exa * unv / o;
        }
        break;
    CASE 1:
        IF (hj)
        {
            q = t - k - oa;
        }
        ELSE
        {
            cwq = dj - jmb;
        }
        break;
    CASE 2:
        IF (qy)
        {
            qsx = z + dc * w;
        }
        break;
    DEFAULT:
        IF (vbi)
        {
            a = r + h / l;
        }
        ELSE
        {
            nj = n - kn / qs;
        }
        break;
}
oyw = -2;
DO
{
    exv = 8;
    WHILE (grd || exv > 0)
    {
        xi = sx - wmc - th;
        exv--;
    }
    oyw--;
}

```

```
}  
WHILE (ab || oyw > -6);
```

Answers

- A. 6 for decision coverage
- B. 9 for decision coverage
- C. 8 for decision coverage
- D. 5 for decision coverage
- E. 7 for decision coverage

Exercise 343

How many test cases are needed for decision coverage of the following code?

```
IF (cq)  
{  
    IF (nb > 0)  
    {  
        sur = sb + y;  
    }  
}  
IF (c)  
{  
    IF (nb < 0)  
    {  
        sur = sb - y;  
    }  
}
```

Answers

- A. 3 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 2 for decision coverage
- E. 1 for decision coverage

Exercise 344

How many test cases are needed for decision coverage of the following code?

```

IF (ky)
{
    FOR (j = 9; j > -1; j--)
    {
        t1h = n / f;
    }
}
ELSE
{
    FOR (nfy = -8; nfy > -17; nfy--)
    {
        ni = wx / m / sc;
    }
}
gqg = wsb - sdt;

```

Answers

- A. 5 for decision coverage
- B. 6 for decision coverage
- C. 4 for decision coverage
- D. 2 for decision coverage
- E. 3 for decision coverage

Exercise 345

How many test cases are needed for decision coverage of the following code?

```

IF (m > 0)
{
    a = b;
    IF (a <= 0)
    {
        IF (b >= 0)
        {
            n = m;
        }
    }
}

```

Answers

- A. 3 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 2 for decision coverage
- E. 1 for decision coverage

Exercise 346

How many test cases are needed for decision coverage of the following code?

```

xy = 0;
WHILE (u || xy < 3)
{
    IF (fub)
    {
        aa = fdn + d - dk;
    }
    xy++;
}
dgi = 7;
DO
{
    FOR (gj = 6; gj > 3; gj--)
    {
        sh = c / voh / jx;
    }
    dgi--;
}
WHILE (iyd || dgi > 2);

```

Answers

- A. 4 for decision coverage
- B. 2 for decision coverage
- C. 5 for decision coverage
- D. 3 for decision coverage
- E. 6 for decision coverage

Exercise 347

How many test cases are needed for decision coverage of the following code?

```

IF (e)
{
    IF (hws)
    {
        hu = bfu - z;
    }
    ELSE
    {
        btd = bzy * jc + h;
    }
}

```

```

ELSE
{
    s = 1;
    WHILE (t || s > -6)
    {
        zho = f * k - o;
        s--;
    }
}
hyb = 5;
WHILE (kkx || hyb > 0)
{
    kg = -6;
    WHILE (cgq || kg < 1)
    {
        ipg = i - jq;
        kg++;
    }
    hyb--;
}

```

Answers

- A. 4 for decision coverage
- B. 1 for decision coverage
- C. 3 for decision coverage
- D. 2 for decision coverage
- E. 5 for decision coverage

Exercise 348

How many test cases are needed for decision coverage of the following code?

```

cp = -8;
DO
{
    vv = s / eeg - m;
    cp++;
}
WHILE (vvd || cp < 1);
FOR (y = -3; y < 8; y++)
{
    r = 11 / x - f;
}

```

Answers

- A. 1 for decision coverage
- B. 4 for decision coverage
- C. 3 for decision coverage
- D. 2 for decision coverage
- E. 5 for decision coverage

Exercise 349

How many test cases are needed for decision coverage of the following code?

```
WHILE (ku || n < -3)
{
    IF (t)
    {
        lh = h - oz - oku;
    }
    ELSE
    {
        twu = k - gks * en;
    }
    n++;
}
hd = te * e + hg;
```

Answers

- A. 3 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 6 for decision coverage
- E. 2 for decision coverage

Exercise 350

How many test cases are needed for decision coverage of the following code?

```
FOR (qbo = -9; qbo > -19; qbo--)
{
    IF (gd)
    {
        vwy = t + qp;
    }
    ELSE
    {
        ywu = hs + al;
    }
}
```

```

IF (c)
{
    fw = br / jea;
}

```

Answers

- A. 5 for decision coverage
- B. 1 for decision coverage
- C. 2 for decision coverage
- D. 4 for decision coverage
- E. 3 for decision coverage

Exercise 351

How many test cases are needed for decision coverage of the following code?

```

IF (qk)
{
    FOR (tlu = 2; tlu < 12; tlu++)
    {
        nos = e / bxu / rm;
    }
}
ELSE
{
    IF (ofc)
    {
        r = d * ncw;
    }
    ELSE
    {
        kiz = zth * l / c;
    }
}
ya = s * no;
IF (yt)
{
    xx = -3;
    DO
    {
        x = rs + mdi;
        xx++;
    }
    WHILE (m || xx < 2);
}
ELSE

```



```

{
    jtz = -8;
    DO
    {
        we = ffg - ik;
        jtz++;
    }
    WHILE (rh || jtz < -4);
}

```

Answers

- A. 3 for decision coverage
- B. 1 for decision coverage
- C. 2 for decision coverage
- D. 4 for decision coverage
- E. 5 for decision coverage

Exercise 352

How many test cases are needed for decision coverage of the following code?

```

SWITCH (owv)
{
    CASE 0:
        rvv = 21;
        WHILE (w || rvv > 9)
        {
            nnc = zot - mop;
            rvv--;
        }
        break;
    CASE 1:
        FOR (u = 2; u < 11; u++)
        {
            ct = bqy / t;
        }
        break;
    CASE 2:
        SWITCH (ih)
        {
            CASE 0:
                snj = ran / d;
                break;
            CASE 1:
                go = mtc + cjp + i;
                break;
        }
    }
}

```

```

    }
    break;
DEFAULT:
    icu = -7;
    WHILE (mm || icu < 5)
    {
        rfg = xc / yw;
        icu++;
    }
    break;
}
SWITCH (gb)
{
    CASE 0:
        FOR (gt = 10; gt > 5; gt--)
        {
            iu = k1k * pmv;
        }
        break;
    CASE 1:
        fuy = 11;
        DO
        {
            qd = npc * s;
            fuy--;
        }
        WHILE (g || fuy > 6);
        break;
    DEFAULT:
        iu = k1k / pmv;
        break;
}
hjm = by * bd;

```

Answers

- A. 6 for decision coverage
- B. 4 for decision coverage
- C. 2 for decision coverage
- D. 3 for decision coverage
- E. 5 for decision coverage

Exercise 353

How many test cases are needed for decision coverage of the following code?

```

gt = -2;
DO
{
    rox = -1;
    WHILE (dto || rox > -7)
    {
        z = gkn * r;
        rox--;
    }
    gt++;
}
WHILE (m || gt < 4);
arf = ues * pmn / k;
SWITCH (jli)
{
    CASE 0:
        n = 0;
        DO
        {
            i = qc + cqg * y;
            n++;
        }
        WHILE (uc || n < 3);
        break;
    CASE 1:
        IF (mj)
        {
            v = si / syz;
        }
        break;
    DEFAULT:
        SWITCH (gc)
        {
            CASE 0:
                vh = bd + zv / ji;
                break;
            CASE 1:
                rux = bta * vs;
                break;
            DEFAULT:
                u = hb * dws / uzi;
                break;
        }
        break;
}

```

Answers

- A. 5 for decision coverage
- B. 6 for decision coverage
- C. 7 for decision coverage
- D. 8 for decision coverage
- E. 9 for decision coverage

Exercise 354

How many test cases are needed for decision coverage of the following code?

```
SWITCH (pjj)
{
    CASE 0:
        SWITCH (em)
        {
            CASE 0:
                oe = lh - nk;
                break;
            CASE 1:
                ae = uza / w;
                break;
            CASE 2:
                ma = rx / vfa;
                break;
            DEFAULT:
                j = acd - ue / am;
                break;
        }
        break;
    CASE 1:
        SWITCH (yc)
        {
            CASE 0:
                r = fyx * krd * wmf;
                break;
            CASE 1:
                ycr = g / khj;
                break;
            CASE 2:
                dry = hcd * qzn;
                break;
            DEFAULT:
                gg = hcq - mx * xbp;
                break;
        }
}
```

```

    break;
CASE 2:
    IF (dbn)
    {
        v = vxy - qbc * yhu;
    }
    break;
DEFAULT:
    ss = 10;
    WHILE (h || ss > 7)
    {
        z = ts * yx / wxq;
        ss--;
    }
    break;
}
IF (c)
{
    gtj = t - swa;
}
dzr = -16;
WHILE (b || dzr < -6)
{
    pxl = 16;
    DO
    {
        k = lff - anx / umj;
        pxl--;
    }
    WHILE (qm || pxl > 4);
    dzr++;
}

```

Answers

- A. 7 for decision coverage
- B. 10 for decision coverage
- C. 8 for decision coverage
- D. 9 for decision coverage
- E. 11 for decision coverage

Exercise 355

How many test cases are needed for decision coverage of the following code?

```

w = -3;
WHILE (1dt || w > -6)
{
    v = -16;
    WHILE (q || v < -4)
    {
        tif = a * i;
        v++;
    }
    w--;
}
kne = -4;
DO
{
    FOR (b = -4; b > -12; b--)
    {
        yes = qud + rlt + jx;
    }
    kne++;
}
WHILE (y || kne < 7);
afx = -3;
DO
{
    IF (ds)
    {
        cc = jz / ppy + lm;
    }
    ELSE
    {
        tpt = m - f;
    }
    afx++;
}
WHILE (zn || afx < 0);

```

Answers

- A. 5 for decision coverage
- B. 4 for decision coverage
- C. 3 for decision coverage
- D. 1 for decision coverage
- E. 2 for decision coverage

Exercise 356

How many test cases are needed for decision coverage of the following code?

```

f = 7;
WHILE (kkh || f < 10)
{
    SWITCH (bb)
    {
        CASE 0:
            id = bti / zi - ci;
            break;
        CASE 1:
            shf = b * qir + e;
            break;
        DEFAULT:
            hf = b * qir + e;
            break;
    }
    f++;
}
IF (wv)
{
    ai = 3;
    WHILE (a || ai < 9)
    {
        mv = wb + r - mc;
        ai++;
    }
}
FOR (ana = 1; ana < 7; ana++)
{
    FOR (iv = -8; iv > -12; iv--)
    {
        mvu = he * mxz;
    }
}

```

Answers

- A. 4 for decision coverage
- B. 5 for decision coverage
- C. 2 for decision coverage
- D. 1 for decision coverage
- E. 3 for decision coverage

Exercise 357

How many test cases are needed for decision coverage of the following code?

```

qeq = sze - ptt * sso;
FOR (ape = 5; ape < 8; ape++)
{
    FOR (dk = -4; dk > -11; dk--)
    {
        bss = eyd / yrb;
    }
}
kh = -4;
DO
{
    FOR (f = 4; f > 1; f--)
    {
        bl = kj * y - jwl;
    }
    kh++;
}
WHILE (ngy || kh < 1);

```

Answers

- A. 2 for decision coverage
- B. 4 for decision coverage
- C. 1 for decision coverage
- D. 5 for decision coverage
- E. 3 for decision coverage

Exercise 358

How many test cases are needed for decision coverage of the following code?

```

IF (s == 1)
{
    IF (g < 0)
    {
        s = 0;
    }
    ELSE
    {
        s = 2;
    }
}
ELSE
{
    IF (wg)
    {
        cab = kwt + yuf + zy;
    }
}

```



```

    }
    ELSE
    {
        yz1 = po + nen - fm;
    }
}
pyn = bpl - bk - ct;

```

Answers

- A. 2 for decision coverage
- B. 3 for decision coverage
- C. 4 for decision coverage
- D. 1 for decision coverage
- E. 5 for decision coverage

Exercise 359

How many test cases are needed for decision coverage of the following code?

```

IF (shw)
{
    SWITCH (ejr)
    {
        CASE 0:
            zkf = s + b * zy;
            break;
        CASE 1:
            oj = m * ctk - t;
            break;
    }
}
IF (gan)
{
    IF (dn)
    {
        xqy = rus - tq;
    }
}
SWITCH (gi)
{
    CASE 0:
        IF (we)
        {
            krb = ek / tgn + evh;
        }
        break;
}

```

```

CASE 1:
    rhh = 1;
    DO
    {
        see = tj / r1 * fs;
        rhh--;
    }
    WHILE (mds || rhh > -3);
    break;
CASE 2:
    IF (asl)
    {
        ok = uzi * a;
    }
    break;
DEFAULT:
    SWITCH (jq)
    {
        CASE 0:
            vz = wib * gl / g;
            break;
        CASE 1:
            dls = ycu * wke;
            break;
        CASE 2:
            o = ss - vfx;
            break;
        DEFAULT:
            oj = m;
            break;
    }
    break;
}

```

Answers

- A. 12 for decision coverage
- B. 9 for decision coverage
- C. 13 for decision coverage
- D. 11 for decision coverage
- E. 10 for decision coverage

Exercise 360

How many test cases are needed for decision coverage of the following code?

```

DO
{
    ahq = y / o - cf;
    nu--;
}
WHILE (zxy || nu > 5);
IF (wrd)
{
    FOR (jz = -1; jz < 8; jz++)
    {
        mxv = og * clb;
    }
}
ELSE
{
    FOR (t = -1; t < 1; t++)
    {
        oj = b - noi;
    }
}
g = 18;
DO
{
    IF (cex)
    {
        gqi = jw * m;
    }
    g--;
}
WHILE (rq || g > 6);

```

Answers

- A. 5 for decision coverage
- B. 2 for decision coverage
- C. 4 for decision coverage
- D. 3 for decision coverage
- E. 1 for decision coverage

Exercise 361

How many test cases are needed for decision coverage of the following code?

```

IF (qu)
{
    IF (yhw)
    {
        mlh = g * qus + qre;
    }
    ELSE
    {
        vai = j * bd / nvq;
    }
}
IF (y1)
{
    SWITCH (bq)
    {
        CASE 0:
            blt = a / p / nki;
            break;
        CASE 1:
            ehn = ybg / fy;
            break;
        DEFAULT:
            zkx = r - vu - jde;
            break;
    }
}
ELSE
{
    tpo = i - c;
}
sx = 17;
WHILE (zn || sx > 9)
{
    h = 1;
    WHILE (jya || h < 4)
    {
        uao = so * tfe;
        h++;
    }
    sx--;
}

```

Answers

- A. 6 for decision coverage
- B. 5 for decision coverage

- C. 4 for decision coverage
- D. 3 for decision coverage
- E. 7 for decision coverage

Exercise 362

How many test cases are needed for decision coverage of the following code?

```
IF (11)
{
    IF (e)
    {
        dh = u * q;
    }
    ELSE
    {
        av = xz * m * uy;
    }
}
ns = 17;
WHILE (hst || ns > 10)
{
    up = dfh - r;
    ns--;
}
yb = zwy / hg;
```

Answers

- A. 5 for decision coverage
- B. 4 for decision coverage
- C. 3 for decision coverage
- D. 1 for decision coverage
- E. 2 for decision coverage

Exercise 363

How many test cases are needed for decision coverage of the following code?

```

SWITCH (u)
{
    CASE 0:
        xt = -4;
        WHILE (k || xt > -7)
        {
            r = z / jq;
            xt--;
        }
        break;
    CASE 1:
        FOR (ez = 0; ez > -3; ez--)
        {
            dw = j * yv + pvr;
        }
        break;
    CASE 2:
        IF (rq)
        {
            gkc = hrv + isd * v;
        }
        break;
    DEFAULT:
        rq = hrv + isd * v;
        break;
}
vkx = 10;
WHILE (fkq || vkx > 2)
{
    FOR (lx1 = 2; lx1 < 8; lx1++)
    {
        ph = ke + vdw - ryp;
    }
    vkx--;
}
FOR (ya = -1; ya < 2; ya++)
{
    IF (ym)
    {
        th = esp - ry;
    }
    ELSE
    {
        ty = xm * rr * itl;
    }
}

```

```
}
```

Answers

- A. 8 for decision coverage
- B. 7 for decision coverage
- C. 4 for decision coverage
- D. 5 for decision coverage
- E. 6 for decision coverage

Exercise 364

How many test cases are needed for decision coverage of the following code?

```
IF (tkz > 0)
{
    yw = by / m1;
}
ELSE
{
    cjc = -1;
    WHILE (cjc < 10)
    {
        k = yn * mgp;
        cjc++;
    }
}
WHILE (mn || uvt > 8)
{
    mwm = -3;
    DO
    {
        xo = rv - de;
        mwm--;
    }
    WHILE (mz || mwm > -9);
    uvt--;
}
DO
{
    hmv = 1;
    WHILE (rxr || hmv > -4)
    {
        bre = p + bkt;
        hmv--;
    }
    xpt--;
}
```

```

}
WHILE (m || xpt > -7);

```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 6 for decision coverage
- D. 3 for decision coverage
- E. 4 for decision coverage

Exercise 365

How many test cases are needed for decision coverage of the following code?

```

FOR (l = 5; l < 7; l++)
{
    IF (csz)
    {
        dvs = o * we;
    }
}
SWITCH (txt < 0 && txx > 0)
{
    CASE 0:
        FOR (ccp = 7; ccp > 5; ccp--)
        {
            dn = f + ngl;
        }
        break;
    CASE 1:
        SWITCH (wca)
        {
            CASE 0:
                m = t / ac;
                break;
            CASE 1:
                y = jbu + kk;
                break;
            CASE 2:
                b = fys * ax - hl;
                break;
            DEFAULT:
                d = ys * wax - hl;
                break;
        }
        break;
}

```



```

}
IF (crm)
{
    hbd = pdn + mnv;
}
ELSE
{
    j = -2;
    DO
    {
        tub = yih * v;
        j++;
    }
    WHILE (imf || j < 1);
}

```

Answers

- A. 4 for decision coverage
- B. 6 for decision coverage
- C. 8 for decision coverage
- D. 7 for decision coverage
- E. 5 for decision coverage

Exercise 366

How many test cases are needed for decision coverage of the following code?

```

SWITCH (t)
{
    CASE 0:
        ytx = 2;
        WHILE (qbj || ytx > -7)
        {
            fnz = g * xwp;
            ytx--;
        }
        break;
    CASE 1:
        IF (nd)
        {
            jb = umc + w / b;
        }
        ELSE
        {
            nk = wjw / bmc + ym;
        }
}

```

```

    break;
}
IF (h)
{
    kmt = bu + urr;
}
ELSE
{
    IF (j)
    {
        FOR (p = 9; p > 0; p--)
        {
            x = jv - ark;
        }
    }
}

```

Answers

- A. 3 for decision coverage
- B. 8 for decision coverage
- C. 7 for decision coverage
- D. 6 for decision coverage
- E. 5 for decision coverage

Exercise 367

How many test cases are needed for decision coverage of the following code?

```

SWITCH (dig)
{
    CASE 0:
        tgr = i - n / mr;
        break;
    CASE 1:
        FOR (m = -3; m < -1; m++)
        {
            cfn = u - zzk + zk;
        }
        break;
    CASE 2:
        SWITCH (cka)
        {
            CASE 0:
                ote = nk / j;
                break;
            CASE 1:

```

```

        a = fz + d + ul;
        break;
    DEFAULT:
        cl = tn - kn;
        break;
    }
    break;
    DEFAULT:
        gr = i + n;
        break;
}
IF (ln)
{
    crb = b + ei - kkx;
}
FOR (uts = -9; uts > -14; uts--)
{
    IF (p)
    {
        r = egp + xdl;
    }
}

```

Answers

- A. 9 for decision coverage
- B. 6 for decision coverage
- C. 8 for decision coverage
- D. 7 for decision coverage
- E. 10 for decision coverage

Exercise 368

How many test cases are needed for decision coverage of the following code?

```

IF (dwd)
{
    oib = 16;
    DO
    {
        b = rso - omd;
        oib--;
    }
    WHILE (d || oib > 8);
}
m = -12;
DO

```

```

{
    sk = 6;
    WHILE (ssy || sk > -4)
    {
        txu = qsr + ps + lx;
        sk--;
    }
    m++;
}
WHILE (z1 || m < -8);
unp = r * k / p;

```

Answers

- A. 4 for decision coverage
- B. 2 for decision coverage
- C. 1 for decision coverage
- D. 3 for decision coverage
- E. 5 for decision coverage

Exercise 369

How many test cases are needed for decision coverage of the following code?

```

y = 14;
DO
{
    FOR (zoe = 10; zoe > 2; zoe--)
    {
        i = u / j + qtk;
    }
    y--;
}
WHILE (x || y > 7);
m = -16;
WHILE (a || m < -4)
{
    e = 6;
    WHILE (f || e < 9)
    {
        k = bcm - c;
        e++;
    }
    m++;
}
tz = 2;
DO

```

```

{
  SWITCH (nqq)
  {
    CASE 0:
      ge = o / b / svn;
      break;
    CASE 1:
      pqs = idi - p;
      break;
    DEFAULT:
      r = qc + rmr;
      break;
  }
  tz--;
}
WHILE (iuj || tz > -8);

```

Answers

- A. 6 for decision coverage
- B. 4 for decision coverage
- C. 7 for decision coverage
- D. 3 for decision coverage
- E. 5 for decision coverage

Exercise 370

How many test cases are needed for decision coverage of the following code?

```

IF (ja)
{
  IF (m)
  {
    ypq = hx + jix;
  }
}
ELSE
{
  SWITCH (dnt)
  {
    CASE 0:
      zzz = tmc + u;
      break;
    CASE 1:
      e = lm1 / z;
      break;
    CASE 2:

```

```

        oct = jw / xsf;
        break;
    DEFAULT:
        ua = tug - rvk;
        break;
    }
}
xha = cvy - qyv;
heh = qj * hg + hc;

```

Answers

- A. 8 for decision coverage
- B. 10 for decision coverage
- C. 7 for decision coverage
- D. 9 for decision coverage
- E. 6 for decision coverage

Exercise 371

How many test cases are needed for decision coverage of the following code?

```

SWITCH (ayy)
{
    CASE 0:
        i = ps * io;
        break;
    CASE 1:
        o = 11;
        WHILE (ayg || o > 8)
        {
            pi = 4;
            DO
            {
                zy = ao - wov;
                pi--;
            }
            WHILE (yf || pi > -3);
            o--;
        }
        break;
    CASE 2:
        SWITCH (voc)
        {
            CASE 0:
                IF (a)
                {

```

```

        ty = ycm - fip - rw;
    }
    ELSE
    {
        m = ntf / ibz - u;
    }
    break;
CASE 1:
    IF (ei)
    {
        nf = te + zw - vqi;
    }
    break;
DEFAULT:
    yp = -3;
    DO
    {
        hdo = ufg / 1 * vm;
        yp++;
    }
    WHILE (cb || yp < 5);
    break;
}
break;
DEFAULT:
break;
}
IF (bw)
{
    cIn = rak / aq;
}

```

Answers

- A. 11 for decision coverage
- B. 12 for decision coverage
- C. 9 for decision coverage
- D. 8 for decision coverage
- E. 10 for decision coverage

Exercise 372

How many test cases are needed for decision coverage of the following code?

```

FOR (rc = 2; rc > -7; rc--)
{
    fh = rli + q / dm;
}
FOR (ab = -4; ab < 2; ab++)
{
    mfl = -6;
    DO
    {
        IF (ils)
        {
            il = pj * v * dse;
        }
        mfl++;
    }
    WHILE (j || mfl < 6);
}

```

Answers

- A. 1 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 3 for decision coverage
- E. 2 for decision coverage

Exercise 373

How many test cases are needed for decision coverage of the following code?

```

IF (r)
{
    SWITCH (a)
    {
        CASE 0:
            FOR (cdm = -7; cdm < 0; cdm++)
            {
                y = uq - c;
            }
            break;
        CASE 1:
            bv = he - i / qih;
            break;
        DEFAULT:
            lq = m - jdz * o;
            break;
    }
}

```



```

}
sem = 11;
DO
{
  FOR (ybo = -9; ybo < -2; ybo++)
  {
    IF (at)
    {
      n = qge * q;
    }
    ELSE
    {
      sc = id - asq;
    }
  }
  sem--;
}
WHILE (pri || sem > 1);

```

Answers

- A. 8 for decision coverage
- B. 6 for decision coverage
- C. 7 for decision coverage
- D. 4 for decision coverage
- E. 5 for decision coverage

Exercise 374

How many test cases are needed for decision coverage of the following code?

```

jt = 1;
WHILE (bw || jt > -7)
{
  rp = a / io;
  jt--;
}
FOR (mf = -7; mf < 2; mf++)
{
  IF (wzu)
  {
    IF (pp)
    {
      xgc = tre + ul - q;
    }
    ELSE
    {

```

```

        s = mw + qwm;
    }
}
}

```

Answers

- A. 4 for decision coverage
- B. 2 for decision coverage
- C. 5 for decision coverage
- D. 1 for decision coverage
- E. 3 for decision coverage

Exercise 375

How many test cases are needed for decision coverage of the following code?

```

exs = qk1 - sk;
au = 17;
DO
{
    IF (u)
    {
        IF (a)
        {
            o = rq * l;
        }
        ELSE
        {
            w = vvc * h;
        }
    }
    au--;
}
WHILE (1f || au > 6);

```

Answers

- A. 1 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 3 for decision coverage
- E. 2 for decision coverage

Exercise 376

How many test cases are needed for decision coverage of the following code?

```

fui = k / lom;
IF (of)
{
    yjk = 9;
    DO
    {
        IF (kj)
        {
            hsl = gj - aj / b;
        }
        ELSE
        {
            h = jx * bf;
        }
        yjk--;
    }
    WHILE (g || yjk > -1);
}

```

Answers

- A. 4 for decision coverage
- B. 3 for decision coverage
- C. 5 for decision coverage
- D. 2 for decision coverage
- E. 1 for decision coverage

Exercise 377

How many test cases are needed for decision coverage of the following code?

```

IF (ab)
{
    FOR (vg = 1; vg < 3; vg++)
    {
        fz = -13;
        DO
        {
            cm = vgo * gnj;
            fz++;
        }
        WHILE (nc || fz < -1);
    }
}
ELSE
{
    SWITCH (riz)

```

```

{
    CASE 0:
        t = ma + y;
        break;
    CASE 1:
        urz = ec + ka * sg;
        break;
    DEFAULT:
        ur = ec * sg;
        break;
}
}
IF (uo)
{
    fd = 0;
    DO
    {
        el = k + c;
        fd--;
    }
    WHILE (oo || fd > -7);
}

```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 4 for decision coverage
- D. 1 for decision coverage
- E. 3 for decision coverage

Exercise 378

How many test cases are needed for decision coverage of the following code?

```

FOR (j = 4; j < 15; j++)
{
    h = q / rbl;
}
IF (n)
{
    cwb = -2;
    DO
    {
        hz = -19;
        DO
        {

```

```

        bu = f + k - fx;
        hz++;
    }
    WHILE (sr || hz < -8);
    cwb++;
}
WHILE (r || cwb < 7);
}
ELSE
{
    IF (qg)
    {
        nv = bew / unm;
    }
}

```

Answers

- A. 1 for decision coverage
- B. 2 for decision coverage
- C. 3 for decision coverage
- D. 4 for decision coverage
- E. 5 for decision coverage

Exercise 379

How many test cases are needed for decision coverage of the following code?

```

y = 16;
DO
{
    IF (ns)
    {
        IF (ihn)
        {
            cjn = iq * pj + o;
        }
        ELSE
        {
            kj = ptw - jk + r;
        }
    }
}
ELSE
{
    SWITCH (w)
    {
        CASE 0:

```

```

        h = dfx - fd;
        break;
CASE 1:
    x = ye / cmy + ae;
    break;
CASE 2:
    la = zu * hry * fxp;
    break;
    DEFAULT:
    break;
    }
}
y--;
}
WHILE (n || y > 10);
vz = xxn + d - oy;

```

Answers

- A. 8 for decision coverage
- B. 4 for decision coverage
- C. 6 for decision coverage
- D. 7 for decision coverage
- E. 5 for decision coverage

Exercise 380

How many test cases are needed for decision coverage of the following code?

```

IF (mwo)
{
    FOR (i = -2; i > -6; i--)
    {
        SWITCH (a)
        {
            CASE 0:
                wsq = w - nwd;
                break;
            CASE 1:
                io = sy * gnh;
                break;
            CASE 2:
                xsk = oq / d / yvi;
                break;
            DEFAULT:
                sp = nht + cpc;
                break;
        }
    }
}

```

```

    }
  }
}
ELSE
{
  ew = 14;
  WHILE (1 || ew > 9)
  {
    sb = qx * q;
    ew--;
  }
}
pcx = k * odr;

```

Answers

- A. 5 for decision coverage
- B. 7 for decision coverage
- C. 3 for decision coverage
- D. 4 for decision coverage
- E. 6 for decision coverage

Exercise 381

How many test cases are needed for decision coverage of the following code?

```

IF (ta)
{
  pa = 5;
  DO
  {
    u = 10;
    DO
    {
      csb = dcl + vl;
      u--;
    }
    WHILE (d || u > -2);
    pa--;
  }
  WHILE (kn || pa > -4);
}
ELSE
{
  tf = -7;
  WHILE (pkw || tf < 4)
  {

```

```

    edd = 13;
    DO
    {
        a = ksy - xa + fy;
        edd--;
    }
    WHILE (jxz || edd > 2);
    tf++;
}
}
FOR (kf = -7; kf > -12; kf--)
{
    eo = 7;
    DO
    {
        SWITCH (cjb)
        {
            CASE 0:
                j = wq + vc;
                break;
            CASE 1:
                ac = ba / 1 - nga;
                break;
            CASE 2:
                ktz = lfz * ho;
                break;
            DEFAULT:
                ktz = 2;
                break;
        }
        eo--;
    }
    WHILE (avh || eo > 2);
}

```

Answers

- A. 6 for decision coverage
- B. 7 for decision coverage
- C. 4 for decision coverage
- D. 8 for decision coverage
- E. 5 for decision coverage

Exercise 382

How many test cases are needed for decision coverage of the following code?


```

SWITCH (lp)
{
    CASE 0:
        rj = bx - e;
        break;
    CASE 1:
        zsi = inx / g * dih;
        break;
}
tb = -9;
DO
{
    IF (pq)
    {
        xe = 17;
        WHILE (xf || xe > 5)
        {
            vxb = nht + odq / nt;
            xe--;
        }
    }
    ELSE
    {
        y = 5;
        IF (ada)
        {
            lsn = qns / sqf;
            y--;
        }
    }
    tb++;
}
WHILE (sfx || tb < 4);

```

Answers

- A. 5 for decision coverage
- B. 2 for decision coverage
- C. 1 for decision coverage
- D. 3 for decision coverage
- E. 4 for decision coverage

Exercise 383

How many test cases are needed for decision coverage of the following code?

```

zso = ctu - yic;
rj = -3;
DO
{
    kav = 17;
    DO
    {
        fo = e * jk;
        kav--;
    }
    WHILE (gv || kav > 8);
    rj--;
}
WHILE (me || rj > -9);

```

Answers

- A. 2 for decision coverage
- B. 4 for decision coverage
- C. 3 for decision coverage
- D. 5 for decision coverage
- E. 1 for decision coverage

Exercise 384

How many test cases are needed for decision coverage of the following code?

```

IF (oc)
{
    IF (aml)
    {
        r = -18;
        DO
        {
            d = nvr / eg;
            r++;
        }
        WHILE (xkz || r < -8);
    }
    ELSE
    {
        IF (fq)
        {
            ia = em / i;
        }
    }
}

```

```

IF (o)
{
  FOR (b = -7; b > -16; b--)
  {
    ad = 18;
    WHILE (as || ad > 10)
    {
      ev = bhh * mrr;
      ad--;
    }
  }
}
ELSE
{
  kfu = 22;
  DO
  {
    IF (1)
    {
      y = v + nhr;
    }
    ELSE
    {
      iqo = kcj * wap + iq;
    }
    kfu--;
  }
  WHILE (mxm || kfu > 10);
}

```

Answers

- A. 6 for decision coverage
- B. 5 for decision coverage
- C. 3 for decision coverage
- D. 7 for decision coverage
- E. 4 for decision coverage

Exercise 385

How many test cases are needed for decision coverage of the following code?

```

IF (u)
{
    cr = -1;
    WHILE (nc || cr < 9)
    {
        SWITCH (cf)
        {
            CASE 0:
                mfw = r * yn;
                break;
            CASE 1:
                a = yuk + tv;
                break;
            CASE 2:
                m = om - yx - mfb;
                break;
            DEFAULT:
                mn = m - mfb;
                break;
        }
        cr++;
    }
}
sd = 17;
DO
{
    vx0 = d + zie;
    sd--;
}
WHILE (nd || sd > 10);

```

Answers

- A. 5 for decision coverage
- B. 1 for decision coverage
- C. 4 for decision coverage
- D. 3 for decision coverage
- E. 2 for decision coverage

Exercise 386

How many test cases are needed for decision coverage of the following code?

```

SWITCH (f)
{
    CASE 0:
        hj = -11;
        DO
        {
            FOR (zhd = -8; zhd > -10; zhd--)
            {
                w = sgd + b;
            }
            hj++;
        }
        WHILE (o || hj < 1);
        break;
    CASE 1:
        IF (gt)
        {
            FOR (xja = -6; xja > -10; xja--)
            {
                bo = qvo - rf - vun;
            }
        }
        ELSE
        {
            IF (uk)
            {
                onz = e * y - yvg;
            }
            ELSE
            {
                dhj = ng - xei - lw;
            }
        }
        break;
}
SWITCH (su)
{
    CASE 0:
        dyb = thm - m;
        break;
    CASE 1:
        t1 = 0;
        DO
        {
            SWITCH (hp)

```

```

    {
        CASE 0:
            jjs = avr - k;
            break;
        CASE 1:
            fsu = kp + poi;
            break;
        DEFAULT:
            liq = p / twa - g;
            break;
    }
    t1++;
}
WHILE (hy || t1 < 10);
break;
CASE 2:
    SWITCH (asq)
    {
        CASE 0:
            r = -9;
            DO
            {
                xf = i / ydc / lxo;
                r++;
            }
            WHILE (tc || r < -3);
            break;
        CASE 1:
            ls = 11;
            WHILE (emn || ls > 7)
            {
                va = dax - ib;
                ls--;
            }
            break;
        DEFAULT:
            zt = jx / ip - ts;
            break;
    }
    break;
}

```

Answers

- A. 7 for decision coverage
- B. 10 for decision coverage

- C. 5 for decision coverage
- D. 11 for decision coverage
- E. 9 for decision coverage

Exercise 387

How many test cases are needed for decision coverage of the following code?

```
w = -11;
WHILE (imx || w < -1)
{
    y = mty / wy;
    w++;
}
IF (g)
{
    IF (ji)
    {
        IF (x)
        {
            hy = yjz - h - e1;
        }
    }
}
```

Answers

- A. 3 for decision coverage
- B. 2 for decision coverage
- C. 5 for decision coverage
- D. 6 for decision coverage
- E. 4 for decision coverage

Exercise 388

How many test cases are needed for decision coverage of the following code?

```
IF (ym)
{
    le = 19;
    DO
    {
        SWITCH (h)
        {
            CASE 0:
                nh = ju + aap;
                break;
```

```

    CASE 1:
        ge = tzl + bvt / no;
        break;
    CASE 2:
        d = hrd - f;
        break;
        DEFAULT:
            break;
    }
    le--;
}
WHILE (ap || le > 7);
}
IF (dzp)
{
    a = 10;
    DO
    {
        IF (wqk)
        {
            v = t + b;
        }
        a--;
    }
    WHILE (x || a > 5);
}
ELSE
{
    IF (txq)
    {
        SWITCH (qfw)
        {
            CASE 0:
                sm = jr * m;
                break;
            CASE 1:
                n = g - qa;
                break;
                DEFAULT:
                    n = g + qa;
                    break;
        }
    }
}
ELSE
{

```



```

    SWITCH (xa)
    {
        CASE 0:
            kjp = cym * rva / qfq;
            break;
        CASE 1:
            nl = 1 + bsz / u;
            break;
        CASE 2:
            hvk = oh + mm;
            break;
        DEFAULT:
            rkx = pi + j;
            break;
    }
}
}

```

Answers

- A. 6 for decision coverage
- B. 7 for decision coverage
- C. 9 for decision coverage
- D. 5 for decision coverage
- E. 8 for decision coverage

Exercise 389

How many test cases are needed for decision coverage of the following code?

```

FOR (oux = 8; oux > 1; oux--)
{
    SWITCH (fu)
    {
        CASE 0:
            as = tqc * dtl * fed;
            break;
        CASE 1:
            IF (y)
            {
                as = m1 * xmp;
            }
            ELSE
            {
                as = oo + d;
            }
            break;
    }
}

```

```

CASE 2:
    as = 3 / fr;
    break;
DEFAULT:
    as = 3
    break;
}
}
IF (znb)
{
    FOR (k = -9; k < 0; k++)
    {
        SWITCH (tmx)
        {
            CASE 0:
                ia = kcr + f * zc;
                break;
            CASE 1:
                bs = qwz - rqb;
                break;
            DEFAULT:
                b = qwz - rqb;
                break;
        }
    }
}
ELSE
{
    tmz = -3;
    DO
    {
        i = -1;
        DO
        {
            s = su * rvs - hdw;
            i++;
        }
        WHILE (iss || i < 7);
        tmz++;
    }
    WHILE (g || tmz < 7);
}

```

Answers

A. 7 for decision coverage

- B. 10 for decision coverage
- C. 9 for decision coverage
- D. 8 for decision coverage
- E. 11 for decision coverage

Exercise 390

How many test cases are needed for decision coverage of the following code?

```
IF (pv)
{
    IF (n)
    {
        IF (w)
        {
            ci = tbf + gdj;
        }
        ELSE
        {
            wb = wz + e;
        }
    }
    ELSE
    {
        IF (qhc)
        {
            iqe = q / r + d;
        }
    }
}
IF (hej)
{
    sv = -5;
    DO
    {
        IF (hpo)
        {
            wh = yz / tt;
        }
        ELSE
        {
            mmx = p + aow * yxs;
        }
        sv++;
    }
    WHILE (ihr || sv < 6);
}
```

```

}
ELSE
{
  FOR (mz = -7; mz > -9; mz--)
  {
    bsh = o * nsm;
  }
}

```

Answers

- A. 5 for decision coverage
- B. 3 for decision coverage
- C. 4 for decision coverage
- D. 2 for decision coverage
- E. 6 for decision coverage

Exercise 391

How many test cases are needed for decision coverage of the following code?

```

IF (i)
{
  x = 7;
  WHILE (b || x > 0)
  {
    IF (vvq)
    {
      d = yh + cvq;
    }
    x--;
  }
}
ELSE
{
  oyw = 13;
  DO
  {
    IF (zy)
    {
      su = qa / n;
    }
    oyw--;
  }
  WHILE (a || oyw > 4);
}
k = f * m / c;

```

```

SWITCH (nth)
{
    CASE 0:
        SWITCH (of)
        {
            CASE 0:
                qi = 1;
                DO
                {
                    ldd = cn + fkl + fx;
                    qi++;
                }
                WHILE (wgc || qi < 5);
                break;
            CASE 1:
                FOR (trp = 3; trp > -1; trp--)
                {
                    yy = vjk * dm;
                }
                break;
            CASE 2:
                tj = -8;
                DO
                {
                    bg = p / z - do;
                    tj++;
                }
                WHILE (km || tj < -3);
                break;
                DEFAULT:
                    yxy = vjk * dm;
                    break;
        }
        break;
    CASE 1:
        IF (oi)
        {
            zz = q - psn * fg;
            ip = ls - msv;
            zum = nl - ir;
        }
        break;
    CASE 2:
        IF (nrj)
        {

```

```

    SWITCH (ozj)
    {
        CASE 0:
            mlw = zby - e;
            break;
        CASE 1:
            hna = uhz + zu;
            break;
        DEFAULT:
            fme = tfz / nk + lgf;
            break;
    }
}
break;
}

```

Answers

- A. 15 for decision coverage
- B. 16 for decision coverage
- C. 7 for decision coverage
- D. 18 for decision coverage
- E. 9 for decision coverage

Exercise 392

How many test cases are needed for decision coverage of the following code?

```

IF (ze)
{
    SWITCH (tmu)
    {
        CASE 0:
            FOR (yy = 10; yy < 21; yy++)
            {
                fnc = xb + hjw;
            }
            break;
        CASE 1:
            FOR (p = -2; p < 7; p++)
            {
                ac = d + wae - dvx;
            }
            break;
        DEFAULT:
            mpl = 2;
            WHILE (lmx || mpl > -8)

```

```

        {
            bb = kjp - 1n1;
            mpl--;
        }
        break;
    }
}
IF (sh)
{
    FOR (t = -9; t < 2; t++)
    {
        FOR (wcf = -1; wcf < 10; wcf++)
        {
            ib = mx - s;
        }
    }
}
gf = qrc * mp;

```

Answers

- A. 2 for decision coverage
- B. 5 for decision coverage
- C. 6 for decision coverage
- D. 3 for decision coverage
- E. 4 for decision coverage

Exercise 393

How many test cases are needed for decision coverage of the following code?

```

i = 14;
DO
{
    sd = 2;
    WHILE (g || sd < 6)
    {
        FOR (il = -6; il > -11; il--)
        {
            wbx = qh + qa;
        }
        sd++;
    }
    i--;
}
WHILE (zux || i > 9);
uy = ot - yqt - u;

```

```

IF (boy)
{
    tkj = -13;
    WHILE (d || tkj < -2)
    {
        if = aaaj / pw;
        tkj++;
    }
}
ELSE
{
    vj = 7;
    DO
    {
        dw = gaa - w;
        vj--;
    }
    WHILE (jgr || vj > -2);
}

```

Answers

- A. 6 for decision coverage
- B. 3 for decision coverage
- C. 2 for decision coverage
- D. 5 for decision coverage
- E. 4 for decision coverage

Exercise 394

How many test cases are needed for decision coverage of the following code?

```

im = -7;
WHILE (kli || im < -4)
{
    ani = -10;
    DO
    {
        IF (vdr)
        {
            z = mda - lw;
        }
        ELSE
        {
            v = bmk / k * pqp;
        }
        ani++;
    }
}

```



```

    }
    WHILE (vdo || ani < 0);
    im++;
}
SWITCH (uve)
{
    CASE 0:
        SWITCH (vuk)
        {
            CASE 0:
                SWITCH (gx)
                {
                    CASE 0:
                        mpj = sp / f;
                        break;
                    CASE 1:
                        njn = fay + e - js;
                        break;
                        DEFAULT:
                            n = asf;
                            break;
                }
                break;
            CASE 1:
                uu = omb - vim - 1;
                break;
            DEFAULT:
                va = -3;
                DO
                {
                    qgl = guf / lf;
                    va++;
                }
                WHILE (tc || va < 5);
                break;
        }
        break;
    CASE 1:
        IF (gte)
        {
            IF (ifw)
            {
                u = sou * ig / jkq;
            }
        }
}

```

```

    break;
CASE 2:
    FOR (od = 6; od > 0; od--)
    {
        SWITCH (g)
        {
            CASE 0:
                fqg = tk * n / vx;
                break;
            CASE 1:
                ic = be / i;
                break;
            DEFAULT:
                uh = hke / cnz / ie;
                break;
        }
    }
    break;
DEFAULT:
    break;
}
IF (dv)
{
    FOR (jym = -4; jym < 3; jym++)
    {
        IF (mx)
        {
            msx = nim - mh - qtu;
        }
        ELSE
        {
            xdl = lvp + c;
        }
    }
}
ELSE
{
    IF (fhk)
    {
        IF (ea)
        {
            zs = ykx / md * ha;
        }
    }
}
}

```

Answers

- A. 9 for decision coverage
- B. 12 for decision coverage
- C. 8 for decision coverage
- D. 10 for decision coverage
- E. 11 for decision coverage

Exercise 395

How many test cases are needed for decision coverage of the following code?

```

IF (rt)
{
    IF (cp)
    {
        SWITCH (bvv)
        {
            CASE 0:
                fe = rv + ui + n;
                break;
            CASE 1:
                z = a - wd;
                break;
            DEFAULT:
                dsz = ++wd;
                break;
        }
    }
    ELSE
    {
        IF (uqe)
        {
            zyw = zhy * gkn / lcp;
        }
        ELSE
        {
            mp = rn / fts / mhp;
        }
    }
}
IF (v)
{
    IF (vs)
    {
        IF (bhc)
        {

```

```

        s = gxg + qcz - r;
    }
    ELSE
    {
        imh = tfp / ac * ujq;
    }
}
ELSE
{
    IF (o)
    {
        zhj = tt - po - hrv;
    }
}
}
jy = xjt * j - dkf;

```

Answers

- A. 3 for decision coverage
- B. 4 for decision coverage
- C. 7 for decision coverage
- D. 5 for decision coverage
- E. 6 for decision coverage

Exercise 396

How many test cases are needed for decision coverage of the following code?

```

gd = 6;
WHILE (oi || gd > 0)
{
    FOR (a = -2; a > -13; a--)
    {
        SWITCH (at)
        {
            CASE 0:
                rln = yi / dj;
                break;
            CASE 1:
                e = dfk * o * uoh;
                break;
            DEFAULT:
                break;
        }
    }
}
gd--;

```

```

}
SWITCH (1)
{
CASE 0:
    mnk = -6;
    DO
    {
        IF (1x)
        {
            m1 = opz / d * t;
        }
        ELSE
        {
            imd = hk - dy;
        }
        mnk--;
    }
    WHILE (pf || mnk > -9);
    break;
CASE 1:
    fq = 8;
    WHILE (acd || fq > 2)
    {
        sq = 10;
        WHILE (bwj || sq > 5)
        {
            jop = bt * b jy - b;
            sq--;
        }
        fq--;
    }
    break;
DEFAULT:
    FOR (w = 4; w > -4; w--)
    {
        FOR (m = -3; m < 3; m++)
        {
            i = tb / til;
        }
    }
    break;
}
FOR (wy = 4; wy > 1; wy--)
{
    IF (nes)

```

```

{
  c = 7;
  WHILE (pgh || c > -5)
  {
    ful = xdd - np + qhh;
    c--;
  }
}

```

Answers

- A. 3 for decision coverage
- B. 4 for decision coverage
- C. 5 for decision coverage
- D. 1 for decision coverage
- E. 2 for decision coverage

Exercise 397

How many test cases are needed for decision coverage of the following code?

```

SWITCH (jp)
{
  CASE 0:
    ot = -17;
    DO
    {
      pd = xq / fnx / bc;
      ot++;
    }
    WHILE (e || ot < -6);
    break;
  CASE 1:
    IF (f)
    {
      fvo = 1;
      WHILE (soe || fvo < 4)
      {
        w = geu * agp;
        fvo++;
      }
    }
    break;
  CASE 2:
    SWITCH (rg)
    {

```

```

CASE 0:
    FOR (lt = -8; lt < 0; lt++)
    {
        r = uh * hf;
    }
    break;
CASE 1:
    fn = mnd / ggi;
    break;
DEFAULT:
    lq = 9;
    WHILE (gxb || lq > 4)
    {
        zbl = ua - bnp;
        lq--;
    }
    break;
}
break;
DEFAULT:
    break;
}
d = ap - kf * vqs;
hqm = -1;
WHILE (ri || hqm < 8)
{
    FOR (osd = -2; osd > -7; osd--)
    {
        IF (eay)
        {
            ih = fh - fxz;
        }
    }
    hqm++;
}

```

Answers

- A. 6 for decision coverage
- B. 7 for decision coverage
- C. 10 for decision coverage
- D. 9 for decision coverage
- E. 8 for decision coverage

Exercise 398

How many test cases are needed for decision coverage of the following code?

```

g = 1;
WHILE (u || g > -7)
{
    FOR (b = 2; b > -7; b--)
    {
        IF (e)
        {
            ewm = bw / mwp + f;
        }
        ELSE
        {
            vwl = mmc * kvi;
        }
    }
    g--;
}
FOR (mq = -8; mq > -18; mq--)
{
    xnz = -17;
    WHILE (tfu || xnz < -7)
    {
        FOR (pjr = -2; pjr < 4; pjr++)
        {
            mw = tzb * o * ex;
        }
        xnz++;
    }
}
FOR (ej = 2; ej < 8; ej++)
{
    FOR (i = 6; i > -2; i--)
    {
        put = -7;
        WHILE (sp || put < -1)
        {
            v1 = 1 - sh;
            put++;
        }
    }
}

```

Answers

- A. 4 for decision coverage
- B. 5 for decision coverage
- C. 6 for decision coverage

D. 3 for decision coverage

E. 2 for decision coverage

Exercise 399

How many test cases are needed for decision coverage of the following code?

```

SWITCH (lm)
{
    CASE 0:
        IF (r1)
        {
            env = -2;
            WHILE (a1 || env < 7)
            {
                aei = h * pn - k;
                env++;
            }
        }
    ELSE
    {
        SWITCH (nxp)
        {
            CASE 0:
                jn = wfp - r;
                break;
            CASE 1:
                iag = xk - mtq;
                break;
            DEFAULT
                dwqd == 2;
                break;
        }
    }
    break;
CASE 1:
    d = -2;
    DO
    {
        xrj = mtl + wjr;
        d--;
    }
    WHILE (do || d > -6);
    break;
CASE 2:
    IF (aeo)

```

```

{
  FOR (j1 = 10; j1 > 1; j1--)
  {
    jzy = xbw / ke;
  }
}
ELSE
{
  pa = -3;
  WHILE (wy || pa < 0)
  {
    il = df + ju;
    pa++;
  }
}
break;
DEFAULT:
SWITCH (cv)
{
  CASE 0:
    IF (u)
    {
      flw = eae / cpf / aqh;
    }
    ELSE
    {
      qvw = ov * ln / zf;
    }
    break;
  CASE 1:
    FOR (gfx = -4; gfx < 1; gfx++)
    {
      uxr = yrm - uq + b;
    }
    break;
  CASE 2:
    zr = 12;
    DO
    {
      lr = rps / woj;
      zr--;
    }
    WHILE (fh || zr > 7);
    break;
  DEFAULT:

```

```

        IF (ub)
        {
            hmk = ou * pp;
        }
        ELSE
        {
            bft = dh * pzt * tpb;
        }
        break;
    }
    break;
}
IF (jv)
{
    bqj = cm * qx + wte;
}
ELSE
{
    SWITCH (qia)
    {
        CASE 0:
            IF (mt)
            {
                sks = kyr - t;
            }
            ELSE
            {
                n = ouu - gfa * kas;
            }
            break;
        CASE 1:
            ie = ecn + hdg;
            break;
        DEFAULT:
            zhw = jp * ddg / gbj;
            break;
    }
}
SWITCH (z1)
{
    CASE 0:
        sib = -4;
        WHILE (eio || sib < 6)
        {
            wnn = td * zu;

```

```

        sib++;
    }
    break;
CASE 1:
    sh = 5;
    DO
    {
        IF (ora)
        {
            zx = lyj + pkg + sz;
        }
        sh++;
    }
    WHILE (dnw || sh < 9);
    break;
CASE 2:
    IF (dsb)
    {
        xrh = ult * fbo + fj;
    }
    ELSE
    {
        IF (tiq)
        {
            eko = zap / j;
        }
        ELSE
        {
            urm = pg + ank - ym;
        }
    }
    break;
DEFAULT:
    IF (cld)
    {
        FOR (igk = 0; igk > -6; igk--)
        {
            xp = on - pk - jh;
        }
    }
    ELSE
    {
        qv = gc - szo - hoo;
    }
    break;

```

```
}
```

Answers

- A. 11 for decision coverage
- B. 12 for decision coverage
- C. 14 for decision coverage
- D. 13 for decision coverage
- E. 10 for decision coverage

Exercise 400

How many test cases are needed for decision coverage of the following code?

```
IF (ec)
{
    SWITCH (vq)
    {
        CASE 0:
            lf = -9;
            WHILE (fu || lf < -2)
            {
                rcb = ww + du;
                lf++;
            }
            break;
        CASE 1:
            moa = -2;
            DO
            {
                p = ttl / w;
                moa--;
            }
            WHILE (nu || moa > -9);
            break;
        DEFAULT:
            dwq = qs + dw;
    }
}
ELSE
{
    SWITCH (bg)
    {
        CASE 0:
            tms = 8;
            WHILE (m || tms > 5)
            {
```

```

        yq = jhz * hwx * ca;
        tms--;
    }
    break;
CASE 1:
    IF (z1)
    {
        xd = tar + or + agk;
    }
    break;
DEFAULT:
    q = alh * xj * ovp;
    break;
}
}
IF (nxh)
{
    l = e + odg;
}
ELSE
{
    IF (ghb)
    {
        FOR (ssg = 5; ssg < 12; ssg++)
        {
            wwi = kqy * o / lo;
        }
    }
}
SWITCH (psv)
{
CASE 0:
    wga = 14;
    DO
    {
        j = 11;
        WHILE (hpp || j > 2)
        {
            zhq = vfu * je * ce;
            j--;
        }
        wga--;
    }
    WHILE (bmx || wga > 9);
    break;

```

```

CASE 1:
  IF (am)
  {
    SWITCH (enx)
    {
      CASE 0:
        tnv = oa * s + zib;
        break;
      CASE 1:
        tq = bns - bb / czv;
        break;
      CASE 2:
        iwp = lak / xxa + kg;
        break;
      DEFAULT:
        h = odw - mj / ph;
        break;
    }
  }
  ELSE
  {
    FOR (te = -5; te > -14; te--)
    {
      sx = en - czn;
    }
  }
  break;
  DEFAULT:
  break;
}

```

Answers

- A. 7 for decision coverage
- B. 6 for decision coverage
- C. 8 for decision coverage
- D. 4 for decision coverage
- E. 5 for decision coverage

Chapter 5. Statement and decision coverage

Some ISTQB questions may refer to both the statement and decision coverage.

Exercises

Exercise 401

How many test cases are needed for statement and decision coverage of the following code?

```
DO
{
    z = r * qrk + q;
    ch--;
}
WHILE (re || ch > 10);
```

Answers

- A. 6 for statement coverage and 3 for decision coverage
- B. 6 for statement coverage and 1 for decision coverage
- C. 5 for statement coverage and 3 for decision coverage
- D. 1 for statement coverage and 1 for decision coverage
- E. 3 for statement coverage and 5 for decision coverage

Exercise 402

How many test cases are needed for statement and decision coverage of the following code?

```
IF (myi)
{
    dwg = dy / k - b;
}
ELSE
{
    f = j * tpj;
}
```

Answers

- A. 4 for statement coverage and 6 for decision coverage
- B. 4 for statement coverage and 3 for decision coverage
- C. 7 for statement coverage and 2 for decision coverage

- D. 2 for statement coverage and 2 for decision coverage
- E. 6 for statement coverage and 4 for decision coverage

Exercise 403

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (h = 8; h > 0; h--)  
{  
    n = sw / u;  
}
```

Answers

- A. 2 for statement coverage and 1 for decision coverage
- B. 1 for statement coverage and 3 for decision coverage
- C. 5 for statement coverage and 2 for decision coverage
- D. 1 for statement coverage and 1 for decision coverage
- E. 3 for statement coverage and 2 for decision coverage

Exercise 404

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (heo = -9; heo < 1; heo++)  
{  
    zj = d + twh;  
}
```

Answers

- A. 4 for statement coverage and 3 for decision coverage
- B. 2 for statement coverage and 4 for decision coverage
- C. 6 for statement coverage and 1 for decision coverage
- D. 1 for statement coverage and 1 for decision coverage
- E. 4 for statement coverage and 6 for decision coverage

Exercise 405

How many test cases are needed for statement and decision coverage of the following code?

```

IF (jks)
{
    ud = cf * gm;
}
ELSE
{
    e = dx * w - bg;
}

```

Answers

- A. 5 for statement coverage and 5 for decision coverage
- B. 1 for statement coverage and 6 for decision coverage
- C. 2 for statement coverage and 2 for decision coverage
- D. 2 for statement coverage and 3 for decision coverage
- E. 6 for statement coverage and 5 for decision coverage

Exercise 406

How many test cases are needed for statement and decision coverage of the following code?

```

izb = -2;
DO
{
    be = zcj + e;
    izb--;
}
WHILE (ca || izb > -9);

```

Answers

- A. 1 for statement coverage and 1 for decision coverage
- B. 5 for statement coverage and 1 for decision coverage
- C. 6 for statement coverage and 2 for decision coverage
- D. 4 for statement coverage and 1 for decision coverage
- E. 3 for statement coverage and 3 for decision coverage

Exercise 407

How many test cases are needed for statement and decision coverage of the following code?

```

IF (tul)
{
    k = cu / m / c;
}

```

Answers

- A. 5 for statement coverage and 5 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 5 for statement coverage and 3 for decision coverage
- D. 2 for statement coverage and 5 for decision coverage
- E. 1 for statement coverage and 5 for decision coverage

Exercise 408

How many test cases are needed for statement and decision coverage of the following code?

```
dg = -13;
WHILE (kvf || dg < -3)
{
    lb = lx - t;
    dg++;
}
```

Answers

- A. 3 for statement coverage and 1 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 6 for statement coverage and 5 for decision coverage
- D. 6 for statement coverage and 2 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 409

How many test cases are needed for statement and decision coverage of the following code?

```
IF (ud)
{
    k = pze * x / eae;
}
ELSE
{
    o = z / q;
}
```

Answers

- A. 3 for statement coverage and 3 for decision coverage
- B. 6 for statement coverage and 5 for decision coverage
- C. 4 for statement coverage and 6 for decision coverage
- D. 6 for statement coverage and 6 for decision coverage
- E. 2 for statement coverage and 2 for decision coverage

Exercise 410

How many test cases are needed for statement and decision coverage of the following code?

```
SWITCH (rps)
{
    CASE 0:
        qz = pnk + go - tjd;
        break;
    CASE 1:
        kav = biq + j / xjo;
        break;
    CASE 2:
        awf = pbv * mft / ifg;
        break;
    DEFAULT:
        yu = ldg / v + jq;
        break;
}
```

Answers

- A. 6 for statement coverage and 6 for decision coverage
- B. 4 for statement coverage and 5 for decision coverage
- C. 4 for statement coverage and 4 for decision coverage
- D. 5 for statement coverage and 2 for decision coverage
- E. 7 for statement coverage and 4 for decision coverage

Exercise 411

How many test cases are needed for statement and decision coverage of the following code?

```
IF (ke)
{
    dld = ph + pkj - xq;
}
```

Answers

- A. 1 for statement coverage and 3 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 4 for statement coverage and 6 for decision coverage
- D. 1 for statement coverage and 5 for decision coverage
- E. 6 for statement coverage and 1 for decision coverage

Exercise 412

How many test cases are needed for statement and decision coverage of the following code?

```
xr = 3;
DO
{
    ejv = zju * plp;
    xr++;
}
WHILE (x || xr < 8);
```

Answers

- A. 4 for statement coverage and 4 for decision coverage
- B. 3 for statement coverage and 5 for decision coverage
- C. 1 for statement coverage and 1 for decision coverage
- D. 6 for statement coverage and 3 for decision coverage
- E. 1 for statement coverage and 3 for decision coverage

Exercise 413

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (ah = 1; ah < 9; ah++)
{
    l = pcl - m * z;
}
```

Answers

- A. 6 for statement coverage and 2 for decision coverage
- B. 3 for statement coverage and 1 for decision coverage
- C. 3 for statement coverage and 2 for decision coverage
- D. 5 for statement coverage and 2 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 414

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (lb = -9; lb > -19; lb--)
{
    bi = s * dt;
}
```

Answers

- A. 1 for statement coverage and 5 for decision coverage
- B. 1 for statement coverage and 6 for decision coverage
- C. 5 for statement coverage and 2 for decision coverage

D. 1 for statement coverage and 1 for decision coverage

E. 6 for statement coverage and 4 for decision coverage

Exercise 415

How many test cases are needed for statement and decision coverage of the following code?

```
SWITCH (q)
{
    CASE 0:
        f = uoc + a;
        break;
    CASE 1:
        u = kcq + zqs;
        break;
    DEFAULT:
        break;
}
```

Answers

A. 3 for statement coverage and 2 for decision coverage

B. 1 for statement coverage and 3 for decision coverage

C. 6 for statement coverage and 6 for decision coverage

D. 2 for statement coverage and 3 for decision coverage

E. 5 for statement coverage and 4 for decision coverage

Exercise 416

How many test cases are needed for statement and decision coverage of the following code?

```
SWITCH (luu)
{
    CASE 0:
        sc = xk + izt;
        break;
    CASE 1:
        h = xbu - kzc / cdj;
        break;
    DEFAULT:
        amf = ah - gtU - ll;
        break;
}
```

Answers

A. 8 for statement coverage and 3 for decision coverage

B. 4 for statement coverage and 4 for decision coverage

- C. 4 for statement coverage and 6 for decision coverage
- D. 7 for statement coverage and 3 for decision coverage
- E. 3 for statement coverage and 3 for decision coverage

Exercise 417

How many test cases are needed for statement and decision coverage of the following code?

```
IF (akz)
{
    t = b + vml / uwj;
}
```

Answers

- A. 3 for statement coverage and 5 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 1 for statement coverage and 5 for decision coverage
- D. 3 for statement coverage and 4 for decision coverage
- E. 2 for statement coverage and 2 for decision coverage

Exercise 418

How many test cases are needed for statement and decision coverage of the following code?

```
a = okk * hr + ehv;
```

Answers

- A. 5 for statement coverage and 6 for decision coverage
- B. 6 for statement coverage and 6 for decision coverage
- C. 1 for statement coverage and 1 for decision coverage
- D. 6 for statement coverage and 3 for decision coverage
- E. 6 for statement coverage and 2 for decision coverage

Exercise 419

How many test cases are needed for statement and decision coverage of the following code?

```
SWITCH (di)
{
    CASE 0:
        y = j + ied + dkp;
        break;
    CASE 1:
        t = v / b;
        break;
    DEFAULT:
        break;
}
```

Answers

- A. 3 for statement coverage and 1 for decision coverage
- B. 2 for statement coverage and 3 for decision coverage
- C. 4 for statement coverage and 2 for decision coverage
- D. 5 for statement coverage and 2 for decision coverage
- E. 5 for statement coverage and 3 for decision coverage

Exercise 420

How many test cases are needed for statement and decision coverage of the following code?

```
IF (hxr)
{
    r = m * v + yju;
}
ELSE
{
    t = i * ha;
}
```

Answers

- A. 5 for statement coverage and 5 for decision coverage
- B. 7 for statement coverage and 4 for decision coverage
- C. 2 for statement coverage and 2 for decision coverage
- D. 7 for statement coverage and 5 for decision coverage
- E. 4 for statement coverage and 5 for decision coverage

Exercise 421

How many test cases are needed for statement and decision coverage of the following code?

```
faq = 0;
DO
{
    y = xiu + rnz;
    faq--;
}
WHILE (kzv || faq > -8);
fsp = zpc - vdg;
```

Answers

- A. 5 for statement coverage and 3 for decision coverage
- B. 2 for statement coverage and 6 for decision coverage
- C. 3 for statement coverage and 5 for decision coverage
- D. 1 for statement coverage and 1 for decision coverage
- E. 3 for statement coverage and 1 for decision coverage

Exercise 422

How many test cases are needed for statement and decision coverage of the following code?

```
plh = x + yu;  
jkw = -14;  
WHILE (s || jkw < -5)  
{  
    flu = r / qdc * bfy;  
    jkw++;  
}
```

Answers

- A. 6 for statement coverage and 5 for decision coverage
- B. 5 for statement coverage and 1 for decision coverage
- C. 1 for statement coverage and 1 for decision coverage
- D. 5 for statement coverage and 4 for decision coverage
- E. 1 for statement coverage and 2 for decision coverage

Exercise 423

How many test cases are needed for statement and decision coverage of the following code?

```
hrq = -8;  
WHILE (g || hrq < 3)  
{  
    p = rjh * z * har;  
    hrq++;  
}  
c = -6;  
DO  
{  
    dhd = bgm / ldn;  
    c--;  
}  
WHILE (qx || c > -9);
```

Answers

- A. 3 for statement coverage and 6 for decision coverage
- B. 3 for statement coverage and 2 for decision coverage
- C. 1 for statement coverage and 1 for decision coverage
- D. 3 for statement coverage and 3 for decision coverage
- E. 1 for statement coverage and 3 for decision coverage

Exercise 424

How many test cases are needed for statement and decision coverage of the following code?

```

t = 7;
DO
{
    rqq = go / z + fhs;
    t--;
}
WHILE (cr || t > -5);
tpw = 11;
WHILE (jt || tpw > 2)
{
    x = lb * s - wn;
    tpw--;
}

```

Answers

- A. 6 for statement coverage and 3 for decision coverage
- B. 1 for statement coverage and 4 for decision coverage
- C. 5 for statement coverage and 2 for decision coverage
- D. 3 for statement coverage and 3 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 425

How many test cases are needed for statement and decision coverage of the following code?

```

FOR (k = -8; k < 0; k++)
{
    bun = b * m;
}
gp = 8;
WHILE (zzc || gp > -3)
{
    dg = j * xnn / cn;
    gp--;
}

```

Answers

- A. 1 for statement coverage and 2 for decision coverage
- B. 1 for statement coverage and 1 for decision coverage
- C. 2 for statement coverage and 3 for decision coverage
- D. 4 for statement coverage and 6 for decision coverage
- E. 6 for statement coverage and 6 for decision coverage

Exercise 426

How many test cases are needed for statement and decision coverage of the following code?

```
IF (m)
{
    r = l * k - u;
}
ELSE
{
    lh = eix / ea + uy;
}
bj = ttn + zzh;
```

Answers

- A. 7 for statement coverage and 5 for decision coverage
- B. 2 for statement coverage and 2 for decision coverage
- C. 7 for statement coverage and 4 for decision coverage
- D. 7 for statement coverage and 1 for decision coverage
- E. 6 for statement coverage and 3 for decision coverage

Exercise 427

How many test cases are needed for statement and decision coverage of the following code?

```
IF (c)
{
    mf = en / wm + xv;
}
ELSE
{
    fu = ezw * cb * r;
}
lem = sjr - szw - drt;
```

Answers

- A. 3 for statement coverage and 5 for decision coverage
- B. 4 for statement coverage and 2 for decision coverage
- C. 2 for statement coverage and 2 for decision coverage
- D. 7 for statement coverage and 3 for decision coverage
- E. 5 for statement coverage and 7 for decision coverage

Exercise 428

How many test cases are needed for statement and decision coverage of the following code?

```
wxd = ly / qqb + y;
IF (eut)
{
    jd = p + pnv / hi;
}
```

Answers

- A. 1 for statement coverage and 5 for decision coverage
- B. 6 for statement coverage and 5 for decision coverage
- C. 4 for statement coverage and 2 for decision coverage
- D. 2 for statement coverage and 5 for decision coverage
- E. 1 for statement coverage and 2 for decision coverage

Exercise 429

How many test cases are needed for statement and decision coverage of the following code?

```
IF (v)
{
    twa = wwd - 1;
}
FOR (ddo = -8; ddo > -10; ddo--)
{
    tp = h + i - hng;
}
```

Answers

- A. 6 for statement coverage and 3 for decision coverage
- B. 6 for statement coverage and 2 for decision coverage
- C. 2 for statement coverage and 5 for decision coverage
- D. 2 for statement coverage and 6 for decision coverage
- E. 1 for statement coverage and 2 for decision coverage

Exercise 430

How many test cases are needed for statement and decision coverage of the following code?

```
SWITCH (xqp)
{
    CASE 0:
        asi = lvk / jr + d;
        break;
    CASE 1:
        zxe = z - e * gxr;
        break;
    DEFAULT:
```

```
    nh = h * x;  
    break;  
}  
jnj = 2;  
WHILE (t || jnj > -3)  
{  
    k = g / qjf - vm;  
    jnj--;  
}
```

Answers

- A. 3 for statement coverage and 3 for decision coverage
- B. 7 for statement coverage and 5 for decision coverage
- C. 5 for statement coverage and 3 for decision coverage
- D. 2 for statement coverage and 4 for decision coverage
- E. 3 for statement coverage and 6 for decision coverage

Exercise 431

How many test cases are needed for statement and decision coverage of the following code?

```
aj = cmy * u;  
IF (t)  
{  
    mr = o + vv;  
}  
ELSE  
{  
    cw = pt - ux + htj;  
}
```

Answers

- A. 1 for statement coverage and 3 for decision coverage
- B. 2 for statement coverage and 2 for decision coverage
- C. 3 for statement coverage and 5 for decision coverage
- D. 1 for statement coverage and 6 for decision coverage
- E. 1 for statement coverage and 2 for decision coverage

Exercise 432

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (h = 10; h > 0; h--)
{
    v = f - w;
}
IF (bek)
{
    p = g + uy * dy;
}
ELSE
{
    x = ltt + n;
}
```

Answers

- A. 2 for statement coverage and 2 for decision coverage
- B. 1 for statement coverage and 4 for decision coverage
- C. 6 for statement coverage and 1 for decision coverage
- D. 3 for statement coverage and 6 for decision coverage
- E. 6 for statement coverage and 3 for decision coverage

Exercise 433

How many test cases are needed for statement and decision coverage of the following code?

```
oi = kzh * re;
FOR (op = -5; op > -9; op--)
{
    q = dry / r;
}
```

Answers

- A. 3 for statement coverage and 3 for decision coverage
- B. 1 for statement coverage and 1 for decision coverage
- C. 2 for statement coverage and 6 for decision coverage
- D. 2 for statement coverage and 3 for decision coverage
- E. 6 for statement coverage and 4 for decision coverage

Exercise 434

How many test cases are needed for statement and decision coverage of the following code?

```

jnx = x - kuh;
tnq = -8;
DO
{
    o = m1 - wy + y;
    tnq++;
}
WHILE (e || tnq < -1);

```

Answers

- A. 6 for statement coverage and 6 for decision coverage
- B. 4 for statement coverage and 3 for decision coverage
- C. 6 for statement coverage and 5 for decision coverage
- D. 1 for statement coverage and 1 for decision coverage
- E. 4 for statement coverage and 6 for decision coverage

Exercise 435

How many test cases are needed for statement and decision coverage of the following code?

```

FOR (qa = 0; qa > -10; qa--)
{
    v = alf - uei;
}
SWITCH (vpf)
{
    CASE 0:
        ae = m / ih * mb;
        break;
    CASE 1:
        nrl = hw - wlc;
        break;
    DEFAULT:
        mvc = oo / yof - cwb;
        break;
}

```

Answers

- A. 7 for statement coverage and 4 for decision coverage
- B. 3 for statement coverage and 5 for decision coverage
- C. 5 for statement coverage and 5 for decision coverage
- D. 5 for statement coverage and 6 for decision coverage
- E. 3 for statement coverage and 3 for decision coverage

Exercise 436

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (xk)
{
    CASE 0:
        ygw = kz + x;
        break;
    CASE 1:
        gg = jld / dku + ya;
        break;
    CASE 2:
        bx = gp / i;
        break;
    DEFAULT:
        d = y * a * eu;
        break;
}
t = bod / ki - q;

```

Answers

- A. 4 for statement coverage and 4 for decision coverage
- B. 4 for statement coverage and 5 for decision coverage
- C. 1 for statement coverage and 5 for decision coverage
- D. 4 for statement coverage and 7 for decision coverage
- E. 5 for statement coverage and 4 for decision coverage

Exercise 437

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (if)
{
    CASE 0:
        eb = zpz - a + afr;
        break;
    CASE 1:
        vt = 1 * vyo;
        break;
    DEFAULT:
        p = w / pp;
        break;
}
IF (q)
{
    gl = y / trm - ena;
}

```

Answers

- A. 4 for statement coverage and 3 for decision coverage
- B. 4 for statement coverage and 1 for decision coverage
- C. 3 for statement coverage and 3 for decision coverage
- D. 3 for statement coverage and 6 for decision coverage
- E. 5 for statement coverage and 2 for decision coverage

Exercise 438

How many test cases are needed for statement and decision coverage of the following code?

```
IF (e)
{
    gz = xk - s;
}
IF (fdi)
{
    zpu = ssn / jnp;
}
ELSE
{
    p = rq / gy;
}
```

Answers

- A. 2 for statement coverage and 6 for decision coverage
- B. 2 for statement coverage and 2 for decision coverage
- C. 4 for statement coverage and 1 for decision coverage
- D. 1 for statement coverage and 6 for decision coverage
- E. 1 for statement coverage and 3 for decision coverage

Exercise 439

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (dah = 3; dah < 11; dah++)
{
    nu = v * p / gbg;
}
IF (ilw)
{
    wwn = cxu - nlj;
}
ELSE
{
    vfv = t + fl * us;
}
```

Answers

- A. 7 for statement coverage and 4 for decision coverage
- B. 4 for statement coverage and 3 for decision coverage
- C. 3 for statement coverage and 5 for decision coverage
- D. 2 for statement coverage and 2 for decision coverage
- E. 5 for statement coverage and 1 for decision coverage

Exercise 440

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (nv = -1; nv < 6; nv++)
{
    a = s - gy;
}
c = -14;
WHILE (vhe || c < -4)
{
    qpl = wyy * gnu + awu;
    c++;
}
```

Answers

- A. 1 for statement coverage and 1 for decision coverage
- B. 1 for statement coverage and 5 for decision coverage
- C. 2 for statement coverage and 5 for decision coverage
- D. 2 for statement coverage and 6 for decision coverage
- E. 6 for statement coverage and 1 for decision coverage

Exercise 441

How many test cases are needed for statement and decision coverage of the following code?

```
IF (u)
{
    ilz = q * gg * qql;
}
ELSE
{
    fyd = mbr / s;
}
FOR (wb = -8; wb > -12; wb--)
{
    vr1 = rp * e * b;
}
```

Answers

- A. 2 for statement coverage and 4 for decision coverage
- B. 1 for statement coverage and 3 for decision coverage
- C. 6 for statement coverage and 1 for decision coverage
- D. 4 for statement coverage and 4 for decision coverage
- E. 2 for statement coverage and 2 for decision coverage

Exercise 442

How many test cases are needed for statement and decision coverage of the following code?

```
IF (r)
{
    kus = td + iwh;
}
IF (bc)
{
    tpo = ag + ls * z;
}
ELSE
{
    cdu = ms * x + q;
}
```

Answers

- A. 1 for statement coverage and 1 for decision coverage
- B. 5 for statement coverage and 3 for decision coverage
- C. 5 for statement coverage and 4 for decision coverage
- D. 6 for statement coverage and 3 for decision coverage
- E. 2 for statement coverage and 2 for decision coverage

Exercise 443

How many test cases are needed for statement and decision coverage of the following code?

```
ctw = -4;
DO
{
    vro = fs / uo;
    ctw++;
}
WHILE (wmx || ctw < 5);
SWITCH (u)
{
    CASE 0:
        usx = mh / swq;
```

```

    break;
CASE 1:
    a = ns + oi - gr;
    break;
DEFAULT:
    jgb = mdd - up;
    break;
}

```

Answers

- A. 3 for statement coverage and 3 for decision coverage
- B. 2 for statement coverage and 4 for decision coverage
- C. 3 for statement coverage and 1 for decision coverage
- D. 5 for statement coverage and 5 for decision coverage
- E. 2 for statement coverage and 1 for decision coverage

Exercise 444

How many test cases are needed for statement and decision coverage of the following code?

```

uhx = 12;
WHILE (slf || uhx > 1)
{
    ixa = j + i;
    uhx--;
}
cd = 2;
WHILE (rlt || cd > -2)
{
    ngd = w / lee;
    cd--;
}

```

Answers

- A. 1 for statement coverage and 1 for decision coverage
- B. 6 for statement coverage and 6 for decision coverage
- C. 2 for statement coverage and 4 for decision coverage
- D. 1 for statement coverage and 3 for decision coverage
- E. 1 for statement coverage and 4 for decision coverage

Exercise 445

How many test cases are needed for statement and decision coverage of the following code?

```

f = -7;
WHILE (b1 || f < 0)
{
    n = erh + v + xf;
    f++;
}
IF (cx)
{
    ly = d * rwt + ibu;
}
ELSE
{
    t = ggd / pd;
}

```

Answers

- A. 3 for statement coverage and 6 for decision coverage
- B. 2 for statement coverage and 2 for decision coverage
- C. 6 for statement coverage and 5 for decision coverage
- D. 2 for statement coverage and 6 for decision coverage
- E. 4 for statement coverage and 2 for decision coverage

Exercise 446

How many test cases are needed for statement and decision coverage of the following code?

```

FOR (oc = -8; oc > -15; oc--)
{
    qk = qm + khl - u;
}
FOR (b = 9; b < 20; b++)
{
    g = le * i;
}

```

Answers

- A. 1 for statement coverage and 1 for decision coverage
- B. 4 for statement coverage and 2 for decision coverage
- C. 4 for statement coverage and 6 for decision coverage
- D. 3 for statement coverage and 2 for decision coverage
- E. 4 for statement coverage and 3 for decision coverage

Exercise 447

How many test cases are needed for statement and decision coverage of the following code?

```

d = -13;
DO
{
    hvh = gbv + r1;
    d++;
}
WHILE (mti || d < -7);
wrl = n * kps + at;

```

Answers

- A. 2 for statement coverage and 4 for decision coverage
- B. 5 for statement coverage and 4 for decision coverage
- C. 1 for statement coverage and 1 for decision coverage
- D. 1 for statement coverage and 4 for decision coverage
- E. 4 for statement coverage and 6 for decision coverage

Exercise 448

How many test cases are needed for statement and decision coverage of the following code?

```

y = 3;
WHILE (kd || y > -9)
{
    sc = mab + x;
    y--;
}
FOR (kvh = -6; kvh < -1; kvh++)
{
    nzm = m - caq;
}

```

Answers

- A. 1 for statement coverage and 2 for decision coverage
- B. 3 for statement coverage and 2 for decision coverage
- C. 1 for statement coverage and 1 for decision coverage
- D. 1 for statement coverage and 3 for decision coverage
- E. 1 for statement coverage and 4 for decision coverage

Exercise 449

How many test cases are needed for statement and decision coverage of the following code?

```

w = 8;
DO
{
    b = ga - nse * uo;
    w--;
}
WHILE (va || w > 1);
FOR (s = -5; s > -12; s--)
{
    ayb = f - u;
}

```

Answers

- A. 6 for statement coverage and 1 for decision coverage
- B. 1 for statement coverage and 1 for decision coverage
- C. 4 for statement coverage and 6 for decision coverage
- D. 4 for statement coverage and 5 for decision coverage
- E. 6 for statement coverage and 5 for decision coverage

Exercise 450

How many test cases are needed for statement and decision coverage of the following code?

```

IF (f)
{
    hp = x / umw - ws;
}
IF (e)
{
    mdp = aq + tj - d;
}
ELSE
{
    k = zfk * jz;
}

```

Answers

- A. 7 for statement coverage and 2 for decision coverage
- B. 3 for statement coverage and 3 for decision coverage
- C. 3 for statement coverage and 5 for decision coverage
- D. 2 for statement coverage and 2 for decision coverage
- E. 6 for statement coverage and 2 for decision coverage

Exercise 451

How many test cases are needed for statement and decision coverage of the following code?

```

aq = -2;
WHILE (rw || aq < 8)
{
    iz = ad * w + sb;
    aq++;
}
SWITCH (bc)
{
    CASE 0:
        jtk = kpi * nld;
        break;
    CASE 1:
        z = p + th;
        break;
    CASE 2:
        e = foq + ty + nm;
        break;
}

```

Answers

- A. 2 for statement coverage and 6 for decision coverage
- B. 1 for statement coverage and 5 for decision coverage
- C. 3 for statement coverage and 4 for decision coverage
- D. 1 for statement coverage and 2 for decision coverage
- E. 3 for statement coverage and 2 for decision coverage

Exercise 452

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (s)
{
    CASE 0:
        rz = w + ls;
        break;
    CASE 1:
        ug = ry / de;
        break;
}
q = -10;
DO
{
    t = gyk / zh;
    q++;
}
WHILE (nj || q < -4);

```


Answers

- A. 5 for statement coverage and 6 for decision coverage
- B. 3 for statement coverage and 3 for decision coverage
- C. 4 for statement coverage and 2 for decision coverage
- D. 7 for statement coverage and 2 for decision coverage
- E. 2 for statement coverage and 3 for decision coverage

Exercise 453

How many test cases are needed for statement and decision coverage of the following code?

```
IF (lqx)
{
    h = dlw - mmn;
}
SWITCH (gqy)
{
    CASE 0:
        lqf = ha / hj + f;
        break;
    CASE 1:
        jy = 1 - nnc;
        break;
    CASE 2:
        aha = sap / dzu - rjn;
        break;
}
```

Answers

- A. 1 for statement coverage and 7 for decision coverage
- B. 4 for statement coverage and 5 for decision coverage
- C. 3 for statement coverage and 4 for decision coverage
- D. 2 for statement coverage and 8 for decision coverage
- E. 6 for statement coverage and 7 for decision coverage

Exercise 454

How many test cases are needed for statement and decision coverage of the following code?

```

c = 3;
WHILE (q || c > -1)
{
    pd = xu * hoq;
    c--;
}
IF (ew)
{
    gk = f - pk / b;
}
ELSE
{
    mw = wdt + mgr * vl;
}

```

Answers

- A. 3 for statement coverage and 5 for decision coverage
- B. 5 for statement coverage and 5 for decision coverage
- C. 1 for statement coverage and 5 for decision coverage
- D. 5 for statement coverage and 3 for decision coverage
- E. 2 for statement coverage and 2 for decision coverage

Exercise 455

How many test cases are needed for statement and decision coverage of the following code?

```

IF (og)
{
    hmo = hvn + luj;
}
gpx = -12;
WHILE (o || gpx < -9)
{
    om = ma / er + qr;
    gpx++;
}

```

Answers

- A. 1 for statement coverage and 2 for decision coverage
- B. 4 for statement coverage and 4 for decision coverage
- C. 2 for statement coverage and 4 for decision coverage
- D. 5 for statement coverage and 4 for decision coverage
- E. 4 for statement coverage and 2 for decision coverage

Exercise 456

How many test cases are needed for statement and decision coverage of the following code?

```

jpt = v * ahx / j;
FOR (s = 5; s < 9; s++)
{
    ju = oy / qja + do;
}

```

Answers

- A. 1 for statement coverage and 1 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 4 for statement coverage and 4 for decision coverage
- D. 2 for statement coverage and 2 for decision coverage
- E. 2 for statement coverage and 4 for decision coverage

Exercise 457

How many test cases are needed for statement and decision coverage of the following code?

```

oa = 18;
WHILE (oq || oa > 9)
{
    hpz = jnr * ii - pca;
    oa--;
}
IF (r)
{
    ba = gbl / edy - v;
}

```

Answers

- A. 5 for statement coverage and 5 for decision coverage
- B. 3 for statement coverage and 2 for decision coverage
- C. 1 for statement coverage and 2 for decision coverage
- D. 6 for statement coverage and 2 for decision coverage
- E. 4 for statement coverage and 3 for decision coverage

Exercise 458

How many test cases are needed for statement and decision coverage of the following code?

```

j = r / gt + t;
ooj = 21;
WHILE (pjz || ooj > 10)
{
    d = ei - x;
    ooj--;
}

```

Answers

- A. 5 for statement coverage and 1 for decision coverage
- B. 4 for statement coverage and 1 for decision coverage
- C. 6 for statement coverage and 1 for decision coverage
- D. 5 for statement coverage and 2 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 459

How many test cases are needed for statement and decision coverage of the following code?

```

IF (nir)
{
    xuq = g * t / a;
}
ELSE
{
    kz = uk - lt;
}
uv = 7;
WHILE (nyr || uv > 3)
{
    d = o - qel / y;
    uv--;
}

```

Answers

- A. 6 for statement coverage and 1 for decision coverage
- B. 3 for statement coverage and 5 for decision coverage
- C. 4 for statement coverage and 1 for decision coverage
- D. 4 for statement coverage and 5 for decision coverage
- E. 2 for statement coverage and 2 for decision coverage

Exercise 460

How many test cases are needed for statement and decision coverage of the following code?

```

IF (cs)
{
    yrb = g / rgl;
}
IF (x)
{
    oeo = wr * sp * i;
}
ELSE
{
    ma = f * ek + hg;
}

```

Answers

- A. 2 for statement coverage and 7 for decision coverage
- B. 3 for statement coverage and 5 for decision coverage
- C. 3 for statement coverage and 4 for decision coverage
- D. 2 for statement coverage and 4 for decision coverage
- E. 2 for statement coverage and 2 for decision coverage

Exercise 461

How many test cases are needed for statement and decision coverage of the following code?

```

py = -15;
DO
{
    IF (phx)
    {
        qxh = p + 1;
    }
    py++;
}
WHILE (u || py < -7);

```

Answers

- A. 3 for statement coverage and 3 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 3 for statement coverage and 6 for decision coverage
- D. 4 for statement coverage and 6 for decision coverage
- E. 6 for statement coverage and 1 for decision coverage

Exercise 462

How many test cases are needed for statement and decision coverage of the following code?

```

IF (ky)
{
  FOR (xab = -5; xab < -1; xab++)
  {
    hfc = iw - oqp - ee;
  }
}
ELSE
{
  IF (zw)
  {
    z = vo * m;
  }
}

```

Answers

- A. 3 for statement coverage and 2 for decision coverage
- B. 2 for statement coverage and 6 for decision coverage
- C. 2 for statement coverage and 3 for decision coverage
- D. 5 for statement coverage and 6 for decision coverage
- E. 1 for statement coverage and 3 for decision coverage

Exercise 463

How many test cases are needed for statement and decision coverage of the following code?

```

oew = 0;
WHILE (kv || oew > -3)
{
  b = 10;
  DO
  {
    vvx = qod - gwg;
    b--;
  }
  WHILE (ij || b > 0);
  oew--;
}

```

Answers

- A. 1 for statement coverage and 2 for decision coverage
- B. 2 for statement coverage and 3 for decision coverage
- C. 3 for statement coverage and 1 for decision coverage
- D. 6 for statement coverage and 2 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 464

How many test cases are needed for statement and decision coverage of the following code?

```
lhd = es + kpu - jl;
```

Answers

- A. 6 for statement coverage and 6 for decision coverage
- B. 2 for statement coverage and 6 for decision coverage
- C. 4 for statement coverage and 2 for decision coverage
- D. 1 for statement coverage and 1 for decision coverage
- E. 2 for statement coverage and 1 for decision coverage

Exercise 465

How many test cases are needed for statement and decision coverage of the following code?

```
x = c * ze + pp;
```

Answers

- A. 1 for statement coverage and 1 for decision coverage
- B. 3 for statement coverage and 2 for decision coverage
- C. 5 for statement coverage and 4 for decision coverage
- D. 1 for statement coverage and 6 for decision coverage
- E. 4 for statement coverage and 1 for decision coverage

Exercise 466

How many test cases are needed for statement and decision coverage of the following code?

```
SWITCH (wto)
{
    CASE 0:
        SWITCH (sj)
        {
            CASE 0:
                pob = ahs - xao * cq;
                break;
            CASE 1:
                jmb = ko * zku - lxv;
                break;
            CASE 2:
                xy = uic * gju * tgm;
                break;
            DEFAULT:
                daf = v + c / krw;
```

```

        break;
    }
    break;
CASE 1:
    IF (f)
    {
        dqv = 1 / p;
    }
    break;
CASE 2:
    q = 3;
    WHILE (u || q > -6)
    {
        tms = pdd + z;
        q--;
    }
    break;
DEFAULT:
    break;
}

```

Answers

- A. 8 for statement coverage and 9 for decision coverage
- B. 7 for statement coverage and 6 for decision coverage
- C. 10 for statement coverage and 10 for decision coverage
- D. 6 for statement coverage and 8 for decision coverage
- E. 7 for statement coverage and 5 for decision coverage

Exercise 467

How many test cases are needed for statement and decision coverage of the following code?

```

FOR (g = 3; g > 1; g--)
{
    FOR (ft = 9; ft > 1; ft--)
    {
        lq = yun * qa + ey;
    }
}

```

Answers

- A. 1 for statement coverage and 1 for decision coverage
- B. 1 for statement coverage and 3 for decision coverage
- C. 4 for statement coverage and 4 for decision coverage

- D. 2 for statement coverage and 3 for decision coverage
- E. 6 for statement coverage and 6 for decision coverage

Exercise 468

How many test cases are needed for statement and decision coverage of the following code?

```
IF (10)
{
    IF (0)
    {
        v = us + m - fmw;
    }
}
```

Answers

- A. 2 for statement coverage and 5 for decision coverage
- B. 2 for statement coverage and 2 for decision coverage
- C. 1 for statement coverage and 3 for decision coverage
- D. 5 for statement coverage and 2 for decision coverage
- E. 2 for statement coverage and 4 for decision coverage

Exercise 469

How many test cases are needed for statement and decision coverage of the following code?

```
y = dxg - 1;
```

Answers

- A. 4 for statement coverage and 5 for decision coverage
- B. 4 for statement coverage and 6 for decision coverage
- C. 2 for statement coverage and 4 for decision coverage
- D. 1 for statement coverage and 1 for decision coverage
- E. 4 for statement coverage and 2 for decision coverage

Exercise 470

How many test cases are needed for statement and decision coverage of the following code?

```
IF (vi)
{
  FOR (ug = 0; ug > -4; ug--)
  {
    p = acd - arc - vav;
  }
}
```

Answers

- A. 1 for statement coverage and 2 for decision coverage
- B. 2 for statement coverage and 6 for decision coverage
- C. 4 for statement coverage and 4 for decision coverage
- D. 3 for statement coverage and 2 for decision coverage
- E. 4 for statement coverage and 1 for decision coverage

Exercise 471

How many test cases are needed for statement and decision coverage of the following code?

```
ho = -13;
WHILE (h || ho < -4)
{
  IF (yt)
  {
    heu = ff + fd / m;
  }
  ho++;
}
```

Answers

- A. 6 for statement coverage and 5 for decision coverage
- B. 3 for statement coverage and 6 for decision coverage
- C. 1 for statement coverage and 2 for decision coverage
- D. 2 for statement coverage and 1 for decision coverage
- E. 6 for statement coverage and 6 for decision coverage

Exercise 472

How many test cases are needed for statement and decision coverage of the following code?

```
rik = -15;
DO
{
    k = -13;
    WHILE (g || k < -6)
    {
        f = mi - wgm;
        k++;
    }
    rik++;
}
WHILE (oq || rik < -9);
```

Answers

- A. 5 for statement coverage and 6 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 6 for statement coverage and 1 for decision coverage
- D. 5 for statement coverage and 2 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 473

How many test cases are needed for statement and decision coverage of the following code?

```
np = 6;
DO
{
    FOR (r = -8; r < 2; r++)
    {
        ilx = sx - 1;
    }
    np--;
}
WHILE (bqw || np > 3);
```

Answers

- A. 1 for statement coverage and 1 for decision coverage
- B. 4 for statement coverage and 6 for decision coverage
- C. 3 for statement coverage and 6 for decision coverage
- D. 4 for statement coverage and 5 for decision coverage
- E. 6 for statement coverage and 6 for decision coverage

Exercise 474

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (pdi)
{
    CASE 0:
        IF (gc)
        {
            dm = b + uud * i;
        }
        ELSE
        {
            wcy = rne * r;
        }
        break;
    CASE 1:
        SWITCH (wk)
        {
            CASE 0:
                wil = et / fxu + eq;
                break;
            CASE 1:
                qu = d * e;
                break;
            CASE 2:
                ij = kl * do;
                break;
            DEFAULT:
                break;
        }
        break;
    CASE 2:
        FOR (erx = 8; erx > 3; erx--)
        {
            l = hcg * as / g;
        }
        break;
    DEFAULT:
        ma = 1;
        DO
        {
            vr = h * kb * gxe;
            ma++;
        }
        WHILE (w || ma < 6);
        break;
}

```

Answers

- A. 7 for statement coverage and 6 for decision coverage
- B. 7 for statement coverage and 8 for decision coverage
- C. 11 for statement coverage and 8 for decision coverage
- D. 7 for statement coverage and 10 for decision coverage
- E. 8 for statement coverage and 8 for decision coverage

Exercise 475

How many test cases are needed for statement and decision coverage of the following code?

```
IF (ye)
{
    d = 13;
    WHILE (fs || d > 10)
    {
        iys = ffn - um;
        d--;
    }
}
```

Answers

- A. 3 for statement coverage and 4 for decision coverage
- B. 5 for statement coverage and 4 for decision coverage
- C. 2 for statement coverage and 4 for decision coverage
- D. 1 for statement coverage and 2 for decision coverage
- E. 4 for statement coverage and 5 for decision coverage

Exercise 476

How many test cases are needed for statement and decision coverage of the following code?

```
IF (dkp)
{
    r = -13;
    WHILE (c || r < -7)
    {
        mj = cek * srn;
        r++;
    }
}
```

Answers

- A. 3 for statement coverage and 5 for decision coverage
- B. 2 for statement coverage and 5 for decision coverage

- C. 1 for statement coverage and 2 for decision coverage
- D. 5 for statement coverage and 4 for decision coverage
- E. 6 for statement coverage and 4 for decision coverage

Exercise 477

How many test cases are needed for statement and decision coverage of the following code?

```
tw = -14;
WHILE (pp || tw < -6)
{
    IF (o)
    {
        d = q / e;
    }
    tw++;
}
```

Answers

- A. 4 for statement coverage and 2 for decision coverage
- B. 6 for statement coverage and 1 for decision coverage
- C. 1 for statement coverage and 2 for decision coverage
- D. 6 for statement coverage and 4 for decision coverage
- E. 3 for statement coverage and 3 for decision coverage

Exercise 478

How many test cases are needed for statement and decision coverage of the following code?

```
wyy = dm - ns;
```

Answers

- A. 4 for statement coverage and 6 for decision coverage
- B. 2 for statement coverage and 2 for decision coverage
- C. 1 for statement coverage and 1 for decision coverage
- D. 4 for statement coverage and 2 for decision coverage
- E. 2 for statement coverage and 6 for decision coverage

Exercise 479

How many test cases are needed for statement and decision coverage of the following code?

```

op = 6;
DO
{
    IF (aam)
    {
        t1 = h + nd - qlo;
    }
    op--;
}
WHILE (zid || op > -4);

```

Answers

- A. 1 for statement coverage and 2 for decision coverage
- B. 1 for statement coverage and 4 for decision coverage
- C. 4 for statement coverage and 1 for decision coverage
- D. 2 for statement coverage and 1 for decision coverage
- E. 5 for statement coverage and 2 for decision coverage

Exercise 480

How many test cases are needed for statement and decision coverage of the following code?

```

IF (oz)
{
    FOR (erc = 10; erc < 20; erc++)
    {
        uos = in / b + od;
    }
}
ELSE
{
    SWITCH (rw)
    {
        CASE 0:
            z = rzk - md / hiy;
            break;
        CASE 1:
            oeb = pba / c + aah;
            break;
        DEFAULT:
            qs = y + n / ad;
            break;
    }
}

```

Answers

- A. 4 for statement coverage and 4 for decision coverage
- B. 9 for statement coverage and 8 for decision coverage
- C. 4 for statement coverage and 7 for decision coverage
- D. 9 for statement coverage and 5 for decision coverage
- E. 5 for statement coverage and 4 for decision coverage

Exercise 481

How many test cases are needed for statement and decision coverage of the following code?

```
b = 0;  
DO  
{  
  IF (g)  
  {  
    r = m - rm;  
  }  
  b--;  
}  
WHILE (f || b > -6);
```

Answers

- A. 6 for statement coverage and 2 for decision coverage
- B. 3 for statement coverage and 4 for decision coverage
- C. 2 for statement coverage and 2 for decision coverage
- D. 1 for statement coverage and 2 for decision coverage
- E. 2 for statement coverage and 4 for decision coverage

Exercise 482

How many test cases are needed for statement and decision coverage of the following code?

```
jyv = z * sdr;
```

Answers

- A. 2 for statement coverage and 1 for decision coverage
- B. 6 for statement coverage and 5 for decision coverage
- C. 1 for statement coverage and 6 for decision coverage
- D. 1 for statement coverage and 1 for decision coverage
- E. 5 for statement coverage and 3 for decision coverage

Exercise 483

How many test cases are needed for statement and decision coverage of the following code?


```
FOR (fy = 9; fy > 3; fy--)
{
    soe = m * k;
}
```

Answers

- A. 1 for statement coverage and 1 for decision coverage
- B. 1 for statement coverage and 6 for decision coverage
- C. 1 for statement coverage and 4 for decision coverage
- D. 5 for statement coverage and 3 for decision coverage
- E. 6 for statement coverage and 2 for decision coverage

Exercise 484

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (q = -6; q < -1; q++)
{
    FOR (s = 1; s < 3; s++)
    {
        auu = p / c * dn;
    }
}
```

Answers

- A. 2 for statement coverage and 5 for decision coverage
- B. 1 for statement coverage and 1 for decision coverage
- C. 4 for statement coverage and 3 for decision coverage
- D. 2 for statement coverage and 3 for decision coverage
- E. 6 for statement coverage and 3 for decision coverage

Exercise 485

How many test cases are needed for statement and decision coverage of the following code?

```
avp = -5;
WHILE (ldq || avp > -8)
{
    s = 14;
    WHILE (ar || s > 3)
    {
        a = ti + yd;
        s--;
    }
    avp--;
}
```

Answers

- A. 5 for statement coverage and 5 for decision coverage
- B. 1 for statement coverage and 1 for decision coverage
- C. 4 for statement coverage and 3 for decision coverage
- D. 4 for statement coverage and 1 for decision coverage
- E. 6 for statement coverage and 3 for decision coverage

Exercise 486

How many test cases are needed for statement and decision coverage of the following code?

```
IF (pgu)
{
    z = -10;
    WHILE (cy || z < 2)
    {
        xs = bcf - mj - c;
        z++;
    }
}
```

Answers

- A. 3 for statement coverage and 4 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 5 for statement coverage and 5 for decision coverage
- D. 6 for statement coverage and 4 for decision coverage
- E. 2 for statement coverage and 5 for decision coverage

Exercise 487

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (rw = -6; rw < -4; rw++)
{
    IF (dm)
    {
        cy = emx + lr * s;
    }
}
```

Answers

- A. 6 for statement coverage and 2 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 1 for statement coverage and 4 for decision coverage
- D. 4 for statement coverage and 7 for decision coverage
- E. 4 for statement coverage and 3 for decision coverage

Exercise 488

How many test cases are needed for statement and decision coverage of the following code?

```
IF (tn)
{
    x = -10;
    DO
    {
        ss = k - 1e;
        x++;
    }
    WHILE (g || x < -7);
}
```

Answers

- A. 1 for statement coverage and 6 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 5 for statement coverage and 3 for decision coverage
- D. 6 for statement coverage and 7 for decision coverage
- E. 6 for statement coverage and 5 for decision coverage

Exercise 489

How many test cases are needed for statement and decision coverage of the following code?

```
alk = iuo + rm;
```

Answers

- A. 4 for statement coverage and 5 for decision coverage
- B. 4 for statement coverage and 6 for decision coverage
- C. 3 for statement coverage and 4 for decision coverage
- D. 1 for statement coverage and 4 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 490

How many test cases are needed for statement and decision coverage of the following code?

```

l = -6;
WHILE (qy || l < -1)
{
    w = -2;
    WHILE (tjt || w > -8)
    {
        n = cim - vo;
        w--;
    }
    l++;
}

```

Answers

- A. 5 for statement coverage and 2 for decision coverage
- B. 3 for statement coverage and 6 for decision coverage
- C. 4 for statement coverage and 4 for decision coverage
- D. 4 for statement coverage and 1 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 491

How many test cases are needed for statement and decision coverage of the following code?

```

IF (z)
{
    IF (g)
    {
        kzx = vmi * r;
    }
    ELSE
    {
        jbe = ixs * n;
    }
}
ELSE
{
    IF (m)
    {
        zq = u + rqt - x;
    }
}

```

Answers

- A. 3 for statement coverage and 5 for decision coverage
- B. 6 for statement coverage and 7 for decision coverage

- C. 6 for statement coverage and 5 for decision coverage
- D. 3 for statement coverage and 4 for decision coverage
- E. 8 for statement coverage and 5 for decision coverage

Exercise 492

How many test cases are needed for statement and decision coverage of the following code?

```
IF (au)
{
    jn = 15;
    WHILE (ev || jn > 6)
    {
        vmy = le - ffl;
        jn--;
    }
}
```

Answers

- A. 4 for statement coverage and 1 for decision coverage
- B. 5 for statement coverage and 5 for decision coverage
- C. 1 for statement coverage and 2 for decision coverage
- D. 2 for statement coverage and 3 for decision coverage
- E. 6 for statement coverage and 4 for decision coverage

Exercise 493

How many test cases are needed for statement and decision coverage of the following code?

```
IF (ipy)
{
    IF (t)
    {
        wvm = vwv - z;
    }
}
ELSE
{
    SWITCH (bqu)
    {
        CASE 0:
            ab = uon / b;
            break;
        CASE 1:
            gxm = jr / dvc;
            break;
    }
}
```

```

    DEFAULT:
        break;
    }
}

```

Answers

- A. 5 for statement coverage and 6 for decision coverage
- B. 2 for statement coverage and 5 for decision coverage
- C. 4 for statement coverage and 4 for decision coverage
- D. 3 for statement coverage and 5 for decision coverage
- E. 3 for statement coverage and 6 for decision coverage

Exercise 494

How many test cases are needed for statement and decision coverage of the following code?

```

vt = 0;
DO
{
    d = 0;
    DO
    {
        p = vw * w;
        d--;
    }
    WHILE (vtk || d > -4);
    vt++;
}
WHILE (mlu || vt < 6);

```

Answers

- A. 4 for statement coverage and 1 for decision coverage
- B. 6 for statement coverage and 3 for decision coverage
- C. 1 for statement coverage and 4 for decision coverage
- D. 1 for statement coverage and 1 for decision coverage
- E. 5 for statement coverage and 4 for decision coverage

Exercise 495

How many test cases are needed for statement and decision coverage of the following code?

```

IF (q)
{
    FOR (erk = -3; erk < 8; erk++)
    {
        h = aux / o;
    }
}
ELSE
{
    SWITCH (wq)
    {
        CASE 0:
            m = koe - i;
            break;
        CASE 1:
            xod = qxe * ajl - ovs;
            break;
        CASE 2:
            y = yo + pu;
            break;
        DEFAULT:
            break;
    }
}

```

Answers

- A. 3 for statement coverage and 6 for decision coverage
- B. 4 for statement coverage and 4 for decision coverage
- C. 3 for statement coverage and 5 for decision coverage
- D. 4 for statement coverage and 5 for decision coverage
- E. 4 for statement coverage and 3 for decision coverage

Exercise 496

How many test cases are needed for statement and decision coverage of the following code?

```

IF (gs)
{
    IF (fby)
    {
        b = vzu / ecs + hn;
    }
}

```

Answers

- A. 2 for statement coverage and 3 for decision coverage
- B. 5 for statement coverage and 5 for decision coverage
- C. 1 for statement coverage and 3 for decision coverage
- D. 3 for statement coverage and 4 for decision coverage
- E. 3 for statement coverage and 6 for decision coverage

Exercise 497

How many test cases are needed for statement and decision coverage of the following code?

```
SWITCH (yyf)
{
    CASE 0:
        FOR (zdz = -4; zdz > -8; zdz--)
        {
            usx = thn / a / eni;
        }
        break;
    CASE 1:
        qe = yzi + fgz;
        break;
    CASE 2:
        IF (iuo)
        {
            uy = ey + x;
        }
        break;
    DEFAULT:
        break;
}
```

Answers

- A. 4 for statement coverage and 5 for decision coverage
- B. 3 for statement coverage and 3 for decision coverage
- C. 5 for statement coverage and 7 for decision coverage
- D. 3 for statement coverage and 5 for decision coverage
- E. 3 for statement coverage and 4 for decision coverage

Exercise 498

How many test cases are needed for statement and decision coverage of the following code?


```
FOR (eza = -5; eza < 6; eza++)
{
    FOR (xu = 5; xu > 3; xu--)
    {
        t = le - blo;
    }
}
```

Answers

- A. 4 for statement coverage and 5 for decision coverage
- B. 5 for statement coverage and 1 for decision coverage
- C. 2 for statement coverage and 4 for decision coverage
- D. 6 for statement coverage and 5 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 499

How many test cases are needed for statement and decision coverage of the following code?

```
qw = 0;
WHILE (qin || qw < 10)
{
    IF (gq)
    {
        xd = c - i + q;
    }
    ELSE
    {
        kk = r * dqx;
    }
    qw++;
}
```

Answers

- A. 3 for statement coverage and 4 for decision coverage
- B. 7 for statement coverage and 6 for decision coverage
- C. 5 for statement coverage and 4 for decision coverage
- D. 2 for statement coverage and 2 for decision coverage
- E. 3 for statement coverage and 2 for decision coverage

Exercise 500

How many test cases are needed for statement and decision coverage of the following code?

```

IF (en)
{
    SWITCH (g)
    {
        CASE 0:
            dir = px * gq * tu;
            break;
        CASE 1:
            qjs = azl + k;
            break;
            DEFAULT:
            break;
    }
}
ELSE
{
    fc = -2;
    WHILE (ts || fc > -6)
    {
        xr = yn / gt + i;
        fc--;
    }
}

```

Answers

- A. 6 for statement coverage and 6 for decision coverage
- B. 3 for statement coverage and 4 for decision coverage
- C. 3 for statement coverage and 3 for decision coverage
- D. 1 for statement coverage and 5 for decision coverage
- E. 5 for statement coverage and 1 for decision coverage

Exercise 501

How many test cases are needed for statement and decision coverage of the following code?

```

IF (v)
{
    IF (kyb)
    {
        y = qpt - box;
    }
    ELSE
    {
        x = h / s;
    }
}

```

```

IF (te)
{
    IF (zq)
    {
        bs = m * gui / c;
    }
}
ELSE
{
    e = gye - lny;
}

```

Answers

- A. 3 for statement coverage and 4 for decision coverage
- B. 1 for statement coverage and 4 for decision coverage
- C. 5 for statement coverage and 4 for decision coverage
- D. 2 for statement coverage and 3 for decision coverage
- E. 6 for statement coverage and 4 for decision coverage

Exercise 502

How many test cases are needed for statement and decision coverage of the following code?

```

IF (z1a)
{
    IF (jb)
    {
        or = c + q + vn;
    }
    ELSE
    {
        ln = zyj - x;
    }
}
ELSE
{
    g = -3;
    DO
    {
        zt = a + tf + h;
        g--;
    }
    WHILE (fj || g > -6);
}
bj = ux - akh;

```

Answers

- A. 6 for statement coverage and 1 for decision coverage
- B. 3 for statement coverage and 4 for decision coverage
- C. 2 for statement coverage and 2 for decision coverage
- D. 3 for statement coverage and 3 for decision coverage
- E. 2 for statement coverage and 5 for decision coverage

Exercise 503

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (ajr)
{
    CASE 0:
        IF (r)
        {
            qy = z * ak - q;
        }
        break;
    CASE 1:
        IF (zv)
        {
            fm = ad - yf;
        }
        break;
    DEFAULT:
        break;
}
IF (cbf)
{
    IF (ksb)
    {
        ub = a / skc;
    }
}
ELSE
{
    ok = -1;
    WHILE (nfk || ok < 2)
    {
        fpo = txs + jzq - su;
        ok++;
    }
}

```

Answers

- A. 5 for statement coverage and 8 for decision coverage
- B. 4 for statement coverage and 3 for decision coverage
- C. 2 for statement coverage and 5 for decision coverage
- D. 3 for statement coverage and 5 for decision coverage
- E. 2 for statement coverage and 4 for decision coverage

Exercise 504

How many test cases are needed for statement and decision coverage of the following code?

```
gw = it - pn;
za = -10;
DO
{
    SWITCH (rbt)
    {
        CASE 0:
            fh = fx - uyp * nvv;
            break;
        CASE 1:
            jf = rk * uo;
            break;
        DEFAULT:
            break;
    }
    za++;
}
WHILE (ao || za < -3);
```

Answers

- A. 2 for statement coverage and 3 for decision coverage
- B. 2 for statement coverage and 4 for decision coverage
- C. 2 for statement coverage and 2 for decision coverage
- D. 5 for statement coverage and 1 for decision coverage
- E. 6 for statement coverage and 3 for decision coverage

Exercise 505

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (vx)
{
    CASE 0:
        IF (exi)
        {
            fn = x - rpc + fvz;
        }
        ELSE
        {
            w = dxd * cs / rvq;
        }
        break;
    CASE 1:
        SWITCH (n)
        {
            CASE 0:
                ce = ehd - ilg - sd;
                break;
            CASE 1:
                qo = ca - axk * jek;
                break;
            DEFAULT:
                o = cwo * z;
                break;
        }
        break;
    DEFAULT:
        break;
}
FOR (hn = -2; hn > -5; hn--)
{
    qi = -2;
    WHILE (fki || qi < 5)
    {
        qw = lzp * dg - alu;
        qi++;
    }
}

```

Answers

- A. 5 for statement coverage and 6 for decision coverage
- B. 4 for statement coverage and 6 for decision coverage
- C. 3 for statement coverage and 5 for decision coverage
- D. 2 for statement coverage and 5 for decision coverage
- E. 6 for statement coverage and 6 for decision coverage

Exercise 506

How many test cases are needed for statement and decision coverage of the following code?

```

ncu = 0;
WHILE (hxi || ncu > -5)
{
    me = xv - r - x;
    ncu--;
}
SWITCH (xug)
{
    CASE 0:
        coa = 0;
        WHILE (ynz || coa < 6)
        {
            aph = j + xx;
            coa++;
        }
        break;
    CASE 1:
        SWITCH (smf)
        {
            CASE 0:
                a = bg * axn + swk;
                break;
            CASE 1:
                pw = tp / umr / k;
                break;
            CASE 2:
                s = lrm * mt * e;
                break;
            DEFAULT:
                yv = axa / p * qn;
                break;
        }
        break;
    DEFAULT:
        break;
}

```

Answers

- A. 5 for statement coverage and 6 for decision coverage
- B. 3 for statement coverage and 4 for decision coverage
- C. 5 for statement coverage and 7 for decision coverage

D. 5 for statement coverage and 8 for decision coverage

E. 4 for statement coverage and 5 for decision coverage

Exercise 507

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (uv = -3; uv > -13; uv--)
{
    FOR (dq = 3; dq > -1; dq--)
    {
        l = nek + cpv / kq;
    }
}
IF (nb)
{
    FOR (q1 = -8; q1 < -1; q1++)
    {
        hso = ef * ibz;
    }
}
```

Answers

A. 3 for statement coverage and 2 for decision coverage

B. 3 for statement coverage and 1 for decision coverage

C. 2 for statement coverage and 2 for decision coverage

D. 1 for statement coverage and 2 for decision coverage

E. 3 for statement coverage and 4 for decision coverage

Exercise 508

How many test cases are needed for statement and decision coverage of the following code?

```
ni = e / wj;
erc = -6;
WHILE (dtq || erc < 0)
{
    bh = 0;
    DO
    {
        hj = fz / t / o;
        bh--;
    }
    WHILE (b || bh > -3);
    erc++;
}
```


Answers

- A. 3 for statement coverage and 5 for decision coverage
- B. 1 for statement coverage and 1 for decision coverage
- C. 5 for statement coverage and 2 for decision coverage
- D. 2 for statement coverage and 3 for decision coverage
- E. 5 for statement coverage and 4 for decision coverage

Exercise 509

How many test cases are needed for statement and decision coverage of the following code?

```
IF (kr1)
{
    IF (n)
    {
        rxg = km / mwe;
    }
}
IF (hmf)
{
    FOR (fn = 1; fn < 12; fn++)
    {
        ccu = kop - vpz * nh;
    }
}
ELSE
{
    FOR (gad = 5; gad < 12; gad++)
    {
        u = prx + dsy;
    }
}
```

Answers

- A. 2 for statement coverage and 2 for decision coverage
- B. 4 for statement coverage and 4 for decision coverage
- C. 1 for statement coverage and 2 for decision coverage
- D. 3 for statement coverage and 2 for decision coverage
- E. 2 for statement coverage and 3 for decision coverage

Exercise 510

How many test cases are needed for statement and decision coverage of the following code?

```

lvh = xgm + em / li;
sr = -18;
WHILE (vgq || sr < -5)
{
    SWITCH (ns)
    {
        CASE 0:
            cbo = y / f + v;
            break;
        CASE 1:
            kd = n / h;
            break;
        DEFAULT:
            tn = imm / g;
            break;
    }
    sr++;
}

```

Answers

- A. 3 for statement coverage and 6 for decision coverage
- B. 3 for statement coverage and 3 for decision coverage
- C. 5 for statement coverage and 4 for decision coverage
- D. 7 for statement coverage and 5 for decision coverage
- E. 4 for statement coverage and 3 for decision coverage

Exercise 511

How many test cases are needed for statement and decision coverage of the following code?

```

IF (fsm)
{
    IF (bo)
    {
        kpc = s * bq / jv;
    }
}
ELSE
{
    IF (wi)
    {
        lx = bwm - ak - nmp;
    }
}
ja = bsx * rok;

```

Answers

- A. 6 for statement coverage and 8 for decision coverage
- B. 7 for statement coverage and 4 for decision coverage
- C. 2 for statement coverage and 4 for decision coverage
- D. 4 for statement coverage and 6 for decision coverage
- E. 7 for statement coverage and 5 for decision coverage

Exercise 512

How many test cases are needed for statement and decision coverage of the following code?

```
s = u / mm * kh;
jb = vb * dl + vsz;
```

Answers

- A. 5 for statement coverage and 1 for decision coverage
- B. 4 for statement coverage and 6 for decision coverage
- C. 1 for statement coverage and 1 for decision coverage
- D. 3 for statement coverage and 4 for decision coverage
- E. 3 for statement coverage and 5 for decision coverage

Exercise 513

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (e = -1; e > -10; e--)
{
    IF (ia)
    {
        v = lba - hy + dm;
    }
}
FOR (b = 2; b < 11; b++)
{
    SWITCH (mg)
    {
        CASE 0:
            cwd = j + nrz * g;
            break;
        CASE 1:
            giu = bm / tbu;
            break;
        DEFAULT:
            zi = bni - ot + lcf;
            break;
    }
}
```

Answers

- A. 7 for statement coverage and 6 for decision coverage
- B. 4 for statement coverage and 5 for decision coverage
- C. 3 for statement coverage and 3 for decision coverage
- D. 5 for statement coverage and 3 for decision coverage
- E. 5 for statement coverage and 1 for decision coverage

Exercise 514

How many test cases are needed for statement and decision coverage of the following code?

```

IF (xh)
{
    tq = da * uf * kjm;
}
ELSE
{
    FOR (jm = 10; jm < 20; jm++)
    {
        vs = f * age + zbn;
    }
}
IF (r)
{
    SWITCH (u)
    {
        CASE 0:
            xg = bsf + uen * pc;
            break;
        CASE 1:
            gs = v * cwl * ck;
            break;
        DEFAULT:
            ey = gvd / qzi * sze;
            break;
    }
}
ELSE
{
    ou = za * k + bww;
}

```

Answers

- A. 5 for statement coverage and 2 for decision coverage
- B. 3 for statement coverage and 6 for decision coverage

- C. 5 for statement coverage and 6 for decision coverage
- D. 4 for statement coverage and 4 for decision coverage
- E. 7 for statement coverage and 2 for decision coverage

Exercise 515

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (ip = 3; ip < 11; ip++)
{
    w = -4;
    WHILE (h || w < 7)
    {
        pb = tmm / byi;
        w++;
    }
}
qmx = bf / yn / ogv;
```

Answers

- A. 6 for statement coverage and 1 for decision coverage
- B. 1 for statement coverage and 1 for decision coverage
- C. 2 for statement coverage and 6 for decision coverage
- D. 6 for statement coverage and 6 for decision coverage
- E. 4 for statement coverage and 2 for decision coverage

Exercise 516

How many test cases are needed for statement and decision coverage of the following code?

```
fd = 0;
DO
{
    c = 2;
    DO
    {
        fdv = iue + wr;
        c++;
    }
    WHILE (rxu || c < 7);
    fd++;
}
WHILE (qtm || fd < 7);
SWITCH (pjpg)
{
    CASE 0:
```

```

SWITCH (z)
{
    CASE 0:
        yqm = cyr * e;
        break;
    CASE 1:
        qh = aoo / nq + blh;
        break;
    DEFAULT:
        xia = ir * ynk * bhx;
        break;
}
break;
CASE 1:
    u = 13;
    WHILE (jm || u > 2)
    {
        ah = tnd / pf * jwo;
        u--;
    }
    break;
DEFAULT:
    IF (ik)
    {
        ojc = gpp * rx;
    }
    break;
}

```

Answers

- A. 5 for statement coverage and 6 for decision coverage
- B. 4 for statement coverage and 8 for decision coverage
- C. 4 for statement coverage and 6 for decision coverage
- D. 1 for statement coverage and 8 for decision coverage
- E. 1 for statement coverage and 4 for decision coverage

Exercise 517

How many test cases are needed for statement and decision coverage of the following code?

```

IF (lg)
{
    z = 14;
    DO
    {
        pm = y / rc - n;
        z--;
    }
    WHILE (zj || z > 2);
}
ELSE
{
    FOR (r = -2; r > -6; r--)
    {
        wfw = j + lj;
    }
}
IF (cnc)
{
    FOR (qy = -7; qy < 0; qy++)
    {
        nrw = fxz + wnb;
    }
}

```

Answers

- A. 2 for statement coverage and 4 for decision coverage
- B. 2 for statement coverage and 2 for decision coverage
- C. 5 for statement coverage and 1 for decision coverage
- D. 2 for statement coverage and 3 for decision coverage
- E. 6 for statement coverage and 5 for decision coverage

Exercise 518

How many test cases are needed for statement and decision coverage of the following code?

```

t = -3;
WHILE (zp || t > -9)
{
    IF (yps)
    {
        y = cnh * fsc;
    }
    ELSE
    {
        f = iw + wg;
    }
}

```

```

    }
    t--;
}
IF (je)
{
    ci = 1;
    DO
    {
        fz1 = r / u;
        ci++;
    }
    WHILE (b || ci < 8);
}
ELSE
{
    w = -5;
    DO
    {
        ev = xpg / hvp;
        w++;
    }
    WHILE (z || w < -1);
}

```

Answers

- A. 2 for statement coverage and 2 for decision coverage
- B. 5 for statement coverage and 6 for decision coverage
- C. 7 for statement coverage and 5 for decision coverage
- D. 6 for statement coverage and 6 for decision coverage
- E. 4 for statement coverage and 6 for decision coverage

Exercise 519

How many test cases are needed for statement and decision coverage of the following code?

```

git = -14;
DO
{
    b = -6;
    DO
    {
        awk = xos * kxo;
        b++;
    }
    WHILE (ynh || b < 5);
    git++;
}

```



```

}
WHILE (p || git < -9);
m = -14;
DO
{
    z = t * oz;
    m++;
}
WHILE (f || m < -6);

```

Answers

- A. 2 for statement coverage and 5 for decision coverage
- B. 3 for statement coverage and 3 for decision coverage
- C. 5 for statement coverage and 4 for decision coverage
- D. 6 for statement coverage and 1 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 520

How many test cases are needed for statement and decision coverage of the following code?

```

ntu = qp - v;
SWITCH (fhz)
{
    CASE 0:
        SWITCH (ges)
        {
            CASE 0:
                o = ryp * rp + cc;
                break;
            CASE 1:
                ty = h / gx;
                break;
            CASE 2:
                m = svc / cx - rwe;
                break;
            DEFAULT:
                break;
        }
        break;
    CASE 1:
        IF (f)
        {
            sc = xo + kzm;
        }
        break;
}

```

```

CASE 2:
    IF (em)
    {
        u = ob * qo;
    }
    break;
DEFAULT:
    nw = 1;
    DO
    {
        xc = z / ozu + uu;
        nw--;
    }
    WHILE (jai || nw > -6);
    break;
}

```

Answers

- A. 9 for statement coverage and 9 for decision coverage
- B. 5 for statement coverage and 6 for decision coverage
- C. 8 for statement coverage and 7 for decision coverage
- D. 6 for statement coverage and 9 for decision coverage
- E. 8 for statement coverage and 6 for decision coverage

Exercise 521

How many test cases are needed for statement and decision coverage of the following code?

```

lit = 16;
WHILE (t || lit > 5)
{
    IF (aiv)
    {
        s = oym * dt - zu;
    }
    ELSE
    {
        kor = re - z;
    }
    lit--;
}
FOR (ro = 8; ro < 15; ro++)
{
    SWITCH (zk)
    {
        CASE 0:

```

```

    avx = jcg / w;
    break;
CASE 1:
    fnu = qs / wsq;
    break;
CASE 2:
    rje = ky * ce;
    break;
DEFAULT:
    oep = afz + jf * qve;
    break;
}
}

```

Answers

- A. 4 for statement coverage and 3 for decision coverage
- B. 5 for statement coverage and 6 for decision coverage
- C. 4 for statement coverage and 4 for decision coverage
- D. 5 for statement coverage and 3 for decision coverage
- E. 5 for statement coverage and 4 for decision coverage

Exercise 522

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (kk)
{
    CASE 0:
        cz = 7;
        DO
        {
            w = s + djr - twu;
            cz--;
        }
        WHILE (ffv || cz > -3);
        break;
    CASE 1:
        IF (v1)
        {
            bt = py / uy;
        }
        ELSE
        {
            myf = kwq * v;
        }
        break;
}

```

```

}
FOR (vw = 5; vw < 14; vw++)
{
    SWITCH (pc)
    {
        CASE 0:
            ia = qy + f + cl;
            break;
        CASE 1:
            vn = b + y * rf;
            break;
        CASE 2:
            u = x - nq - 1;
            break;
        DEFAULT:
            break;
    }
}

```

Answers

- A. 3 for statement coverage and 6 for decision coverage
- B. 3 for statement coverage and 4 for decision coverage
- C. 4 for statement coverage and 4 for decision coverage
- D. 3 for statement coverage and 1 for decision coverage
- E. 3 for statement coverage and 3 for decision coverage

Exercise 523

How many test cases are needed for statement and decision coverage of the following code?

```

yb = jk * qjn / wci;
SWITCH (hwi)
{
    CASE 0:
        o = q / vwi * px;
        break;
    CASE 1:
        FOR (l = 0; l > -6; l--)
        {
            iw = axc + scv * ei;
        }
        break;
    DEFAULT:
        break;
}

```

Answers

- A. 2 for statement coverage and 2 for decision coverage
- B. 2 for statement coverage and 4 for decision coverage
- C. 2 for statement coverage and 3 for decision coverage
- D. 3 for statement coverage and 2 for decision coverage
- E. 3 for statement coverage and 4 for decision coverage

Exercise 524

How many test cases are needed for statement and decision coverage of the following code?

```

xh = -14;
WHILE (hmp || xh < -5)
{
    y = 14;
    WHILE (k || y > 10)
    {
        z = h - x * wg;
        y--;
    }
    xh++;
}
SWITCH (b)
{
    CASE 0:
        FOR (hn = -3; hn < -1; hn++)
        {
            ys = qt / qw + e;
        }
        break;
    CASE 1:
        ywe = -2;
        WHILE (gal || ywe > -6)
        {
            g = a - qxx + wtj;
            ywe--;
        }
        break;
    CASE 2:
        d = -12;
        WHILE (j || d < -1)
        {
            bc = dem * ej;
            d++;
        }
        break;
}

```

```

    DEFAULT:
        break;
}

```

Answers

- A. 2 for statement coverage and 5 for decision coverage
- B. 3 for statement coverage and 4 for decision coverage
- C. 4 for statement coverage and 4 for decision coverage
- D. 5 for statement coverage and 4 for decision coverage
- E. 3 for statement coverage and 5 for decision coverage

Exercise 525

How many test cases are needed for statement and decision coverage of the following code?

```

z = -1;
DO
{
    SWITCH (udv)
    {
        CASE 0:
            lk = dva / kc + jpf;
            break;
        CASE 1:
            dg = b * mhb;
            break;
        DEFAULT:
            break;
    }
    z--;
}
WHILE (cu || z > -6);
qfj = -3;
DO
{
    i = 3;
    DO
    {
        lxy = co - fch + csw;
        i--;
    }
    WHILE (1 || i > -5);
    qfj++;
}
WHILE (xmk || qfj < 1);

```

Answers

- A. 1 for statement coverage and 3 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 1 for statement coverage and 4 for decision coverage
- D. 2 for statement coverage and 3 for decision coverage
- E. 3 for statement coverage and 3 for decision coverage

Exercise 526

How many test cases are needed for statement and decision coverage of the following code?

```

IF (u)
{
    SWITCH (ake)
    {
        CASE 0:
            vpc = iwz * n - gxr;
            break;
        CASE 1:
            grw = ft / qv;
            break;
        CASE 2:
            i = cus - ko;
            break;
        DEFAULT:
            xey = wz - m - v;
            break;
    }
}
IF (yf)
{
    IF (gry)
    {
        b = ds - g;
    }
    ELSE
    {
        sw = rg / nd - d;
    }
}

```

Answers

- A. 1 for statement coverage and 6 for decision coverage
- B. 2 for statement coverage and 3 for decision coverage
- C. 2 for statement coverage and 7 for decision coverage

D. 4 for statement coverage and 5 for decision coverage

E. 1 for statement coverage and 2 for decision coverage

Exercise 527

How many test cases are needed for statement and decision coverage of the following code?

```
vd = dgq + cm;
SWITCH (a)
{
    CASE 0:
        vqn = 13;
        WHILE (te || vqn > 9)
        {
            rg = q * t;
            vqn--;
        }
        break;
    CASE 1:
        IF (i)
        {
            v = d1 - ve;
        }
        ELSE
        {
            ri = qlw - epp - vsh;
        }
        break;
    CASE 2:
        IF (lv)
        {
            bq = lqf - b * gh;
        }
        break;
    DEFAULT:
        r = vtz + ux - n;
        break;
}
```

Answers

A. 6 for statement coverage and 8 for decision coverage

B. 4 for statement coverage and 7 for decision coverage

C. 3 for statement coverage and 6 for decision coverage

D. 6 for statement coverage and 9 for decision coverage

E. 5 for statement coverage and 6 for decision coverage

Exercise 528

How many test cases are needed for statement and decision coverage of the following code?

```

a = 6;
DO
{
  IF (u)
  {
    r = zx * rz * e;
  }
  ELSE
  {
    yx = xar - t * x;
  }
  a++;
}
WHILE (ep || a < 10);
IF (kk)
{
  FOR (v = -8; v < 1; v++)
  {
    nx = o / su - uq;
  }
}

```

Answers

- A. 3 for statement coverage and 2 for decision coverage
- B. 2 for statement coverage and 2 for decision coverage
- C. 5 for statement coverage and 1 for decision coverage
- D. 5 for statement coverage and 6 for decision coverage
- E. 7 for statement coverage and 4 for decision coverage

Exercise 529

How many test cases are needed for statement and decision coverage of the following code?

```

wnf = -15;
WHILE (d || wnf < -6)
{
  FOR (uu = 9; uu > -2; uu--)
  {
    ov = w + e + vj;
  }
  wnf++;
}

```

```

SWITCH (f)
{
    CASE 0:
        pr = kzf - hln * q;
        break;
    CASE 1:
        dg = -12;
        DO
        {
            re = wla - cps;
            dg++;
        }
        WHILE (hx || dg < -3);
        break;
    CASE 2:
        FOR (hh = 1; hh < 8; hh++)
        {
            bzi = wg - otm * uda;
        }
        break;
    DEFAULT:
        IF (fxc)
        {
            eaj = fc / u * t;
        }
        break;
}

```

Answers

- A. 3 for statement coverage and 7 for decision coverage
- B. 5 for statement coverage and 5 for decision coverage
- C. 4 for statement coverage and 5 for decision coverage
- D. 5 for statement coverage and 10 for decision coverage
- E. 6 for statement coverage and 8 for decision coverage

Exercise 530

How many test cases are needed for statement and decision coverage of the following code?

```

IF (u)
{
    IF (f)
    {
        n = qg * rne;
    }
    ELSE
    {
        a = cf * py / mik;
    }
}
ELSE
{
    IF (tvu)
    {
        mi = ntk - hwa / y;
    }
}
ce = -2;
DO
{
    SWITCH (wbk)
    {
        CASE 0:
            l = jj * qrs;
            break;
        CASE 1:
            v = twm + bq;
            break;
        DEFAULT:
            hnj = uq - oig / ob;
            break;
    }
    ce++;
}
WHILE (b || ce < 5);

```

Answers

- A. 3 for statement coverage and 4 for decision coverage
- B. 1 for statement coverage and 6 for decision coverage
- C. 2 for statement coverage and 3 for decision coverage
- D. 6 for statement coverage and 4 for decision coverage
- E. 3 for statement coverage and 3 for decision coverage

Exercise 531

How many test cases are needed for statement and decision coverage of the following code?

```
q = 3;
DO
{
    IF (it)
    {
        kba = pr - lf;
    }
    q++;
}
WHILE (jus || q < 6);
kas = jh + zoe;
```

Answers

- A. 3 for statement coverage and 4 for decision coverage
- B. 5 for statement coverage and 7 for decision coverage
- C. 6 for statement coverage and 5 for decision coverage
- D. 1 for statement coverage and 2 for decision coverage
- E. 6 for statement coverage and 6 for decision coverage

Exercise 532

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (yg = 1; yg > -6; yg--)
{
    b = 13;
    WHILE (y || b > 4)
    {
        z = xu * dtt;
        b--;
    }
}
IF (qnz)
{
    IF (u)
    {
        sqf = mw - lo;
    }
}
```

Answers

- A. 2 for statement coverage and 2 for decision coverage
- B. 1 for statement coverage and 3 for decision coverage

- C. 1 for statement coverage and 2 for decision coverage
- D. 2 for statement coverage and 4 for decision coverage
- E. 6 for statement coverage and 3 for decision coverage

Exercise 533

How many test cases are needed for statement and decision coverage of the following code?

```
fhc = 21;
WHILE (chm || fhc > 9)
{
    IF (cz)
    {
        a = p / jt;
    }
    ELSE
    {
        pfw = fen * y;
    }
    fhc--;
}
IF (nb)
{
    r = xcu / yg / le;
}
ELSE
{
    dgx = 18;
    WHILE (w || dgx > 8)
    {
        il = yqb / x - ft;
        dgx--;
    }
}
```

Answers

- A. 3 for statement coverage and 4 for decision coverage
- B. 2 for statement coverage and 2 for decision coverage
- C. 3 for statement coverage and 5 for decision coverage
- D. 2 for statement coverage and 6 for decision coverage
- E. 5 for statement coverage and 5 for decision coverage

Exercise 534

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (u)
{
    CASE 0:
        IF (xs)
        {
            nk = bvo * ym + axy;
        }
        ELSE
        {
            um = vs * ey;
        }
        break;
    CASE 1:
        IF (w)
        {
            ef = gi + b - bnc;
        }
        break;
    CASE 2:
        zus = -3;
        DO
        {
            hw = cgq + uz + y;
            zus++;
        }
        WHILE (o || zus < 2);
        break;
    DEFAULT:
        break;
}
FOR (ah = -1; ah > -10; ah--)
{
    IF (pb)
    {
        h = k - a - c;
    }
}

```

Answers

- A. 5 for statement coverage and 4 for decision coverage
- B. 5 for statement coverage and 8 for decision coverage
- C. 4 for statement coverage and 6 for decision coverage
- D. 7 for statement coverage and 5 for decision coverage
- E. 3 for statement coverage and 9 for decision coverage

Exercise 535

How many test cases are needed for statement and decision coverage of the following code?

```

z = 6;
WHILE (rpl || z > -4)
{
    IF (u)
    {
        zoc = w - m / f;
    }
    z--;
}
IF (rtz)
{
    IF (tbu)
    {
        mk = mz1 / knj * h;
    }
    ELSE
    {
        j1 = mgt / yry / kd;
    }
}

```

Answers

- A. 5 for statement coverage and 3 for decision coverage
- B. 2 for statement coverage and 3 for decision coverage
- C. 4 for statement coverage and 3 for decision coverage
- D. 1 for statement coverage and 3 for decision coverage
- E. 1 for statement coverage and 4 for decision coverage

Exercise 536

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (kgk)
{
    CASE 0:
        SWITCH (gt)
        {
            CASE 0:
                fq = iqm + zdm;
                break;
            CASE 1:
                hm = v / fzy * o;
                break;
        }
}

```

```

        DEFAULT:
        break;
    }
    break;
CASE 1:
    pk = kqq + k;
    break;
DEFAULT:
    IF (cdn)
    {
        eds = ov * tz;
    }
    break;
}
IF (qge)
{
    FOR (s = -7; s > -9; s--)
    {
        cip = zm * i;
    }
}
ELSE
{
    FOR (of = 0; of < 9; of++)
    {
        ec = vnw * idk + y;
    }
}

```

Answers

- A. 6 for statement coverage and 3 for decision coverage
- B. 2 for statement coverage and 7 for decision coverage
- C. 4 for statement coverage and 6 for decision coverage
- D. 2 for statement coverage and 8 for decision coverage
- E. 5 for statement coverage and 6 for decision coverage

Exercise 537

How many test cases are needed for statement and decision coverage of the following code?


```

FOR (l = 5; l > -3; l--)
{
    ffw = -5;
    WHILE (x || ffw < 6)
    {
        ju = hm - yza;
        ffw++;
    }
}
FOR (g = -7; g < -2; g++)
{
    IF (nt)
    {
        aum = j - i / yhw;
    }
    ELSE
    {
        sz = due + p + xm;
    }
}

```

Answers

- A. 4 for statement coverage and 1 for decision coverage
- B. 1 for statement coverage and 4 for decision coverage
- C. 1 for statement coverage and 2 for decision coverage
- D. 2 for statement coverage and 2 for decision coverage
- E. 6 for statement coverage and 6 for decision coverage

Exercise 538

How many test cases are needed for statement and decision coverage of the following code?

```

ekz = b + ha + bb;
FOR (ow = 5; ow < 14; ow++)
{
    aqu = -18;
    DO
    {
        sa = rq / s;
        aqu++;
    }
    WHILE (gg || aqu < -9);
}

```

Answers

- A. 2 for statement coverage and 6 for decision coverage
- B. 1 for statement coverage and 1 for decision coverage
- C. 5 for statement coverage and 5 for decision coverage
- D. 3 for statement coverage and 4 for decision coverage
- E. 1 for statement coverage and 2 for decision coverage

Exercise 539

How many test cases are needed for statement and decision coverage of the following code?

```

IF (i)
{
    bv = 5;
    DO
    {
        m = jx - oc;
        bv--;
    }
    WHILE (x || bv > -6);
}
ELSE
{
    FOR (eg = 2; eg < 10; eg++)
    {
        u = nhj / c;
    }
}
FOR (nj = -2; nj > -12; nj--)
{
    SWITCH (cz)
    {
        CASE 0:
            ov = me * wn;
            break;
        CASE 1:
            a = ei / f;
            break;
        DEFAULT:
            nag = o + n;
            break;
    }
}

```

Answers

- A. 2 for statement coverage and 3 for decision coverage
- B. 3 for statement coverage and 3 for decision coverage

- C. 5 for statement coverage and 2 for decision coverage
- D. 1 for statement coverage and 3 for decision coverage
- E. 4 for statement coverage and 5 for decision coverage

Exercise 540

How many test cases are needed for statement and decision coverage of the following code?

```
jwj = cj / prn;  
py = g + u;
```

Answers

- A. 3 for statement coverage and 4 for decision coverage
- B. 5 for statement coverage and 5 for decision coverage
- C. 1 for statement coverage and 3 for decision coverage
- D. 6 for statement coverage and 6 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 541

How many test cases are needed for statement and decision coverage of the following code?

```
IF (rst)  
{  
    wj = fvt + v / n;  
}  
dbl = 16;  
WHILE (af || dbl > 4)  
{  
    fta = w * sng * qug;  
    dbl--;  
}
```

Answers

- A. 1 for statement coverage and 6 for decision coverage
- B. 6 for statement coverage and 4 for decision coverage
- C. 5 for statement coverage and 3 for decision coverage
- D. 5 for statement coverage and 6 for decision coverage
- E. 1 for statement coverage and 2 for decision coverage

Exercise 542

How many test cases are needed for statement and decision coverage of the following code?

```
nk = eda * yp - s;  
eid = a + tfj * z;
```

Answers

- A. 5 for statement coverage and 6 for decision coverage
- B. 3 for statement coverage and 3 for decision coverage
- C. 4 for statement coverage and 4 for decision coverage
- D. 1 for statement coverage and 1 for decision coverage
- E. 4 for statement coverage and 6 for decision coverage

Exercise 543

How many test cases are needed for statement and decision coverage of the following code?

```
bds = ay * b - ri;  
IF (s)  
{  
    IF (paj)  
    {  
        xx = g / qqt;  
    }  
}  
ELSE  
{  
    FOR (d = 7; d > 1; d--)  
    {  
        scs = ph - f;  
    }  
}
```

Answers

- A. 2 for statement coverage and 3 for decision coverage
- B. 3 for statement coverage and 6 for decision coverage
- C. 6 for statement coverage and 1 for decision coverage
- D. 3 for statement coverage and 3 for decision coverage
- E. 5 for statement coverage and 1 for decision coverage

Exercise 544

How many test cases are needed for statement and decision coverage of the following code?

```

cxm = -5;
WHILE (eb || cxm < 0)
{
    SWITCH (ujx)
    {
        CASE 0:
            gwo = uqt - cdp * x;
            break;
        CASE 1:
            ray = w / t / ag;
            break;
        CASE 2:
            tuw = ze + h + y;
            break;
        DEFAULT:
            break;
    }
    cxm++;
}
IF (nh)
{
    SWITCH (a)
    {
        CASE 0:
            cby = v + fiw;
            break;
        CASE 1:
            pn = tvb - aw - sx;
            break;
        CASE 2:
            j = xz - pdy + mhk;
            break;
        DEFAULT:
            break;
    }
}
ELSE
{
    ur = -3;
    DO
    {
        no = mv / zjz;
        ur++;
    }
    WHILE (mo || ur < 4);
}

```

```
}
```

Answers

- A. 7 for statement coverage and 10 for decision coverage
- B. 9 for statement coverage and 9 for decision coverage
- C. 8 for statement coverage and 5 for decision coverage
- D. 4 for statement coverage and 5 for decision coverage
- E. 5 for statement coverage and 9 for decision coverage

Exercise 545

How many test cases are needed for statement and decision coverage of the following code?

```
e = khg * tyy / xv;
hq = -4;
DO
{
    teo = qe * af / roc;
    hq++;
}
WHILE (c || hq < 1);
```

Answers

- A. 4 for statement coverage and 6 for decision coverage
- B. 1 for statement coverage and 1 for decision coverage
- C. 5 for statement coverage and 1 for decision coverage
- D. 3 for statement coverage and 2 for decision coverage
- E. 5 for statement coverage and 4 for decision coverage

Exercise 546

How many test cases are needed for statement and decision coverage of the following code?

```
ouk = 2;
DO
{
    jx = 19;
    DO
    {
        oi = yxz - mg;
        jx--;
    }
    WHILE (o || jx > 8);
    ouk++;
}
WHILE (y || ouk < 9);
```

```

IF (gy)
{
    FOR (q = -3; q > -12; q--)
    {
        sg = aig * xn - qhf;
    }
}
ELSE
{
    k = -12;
    WHILE (fxv || k < -2)
    {
        cxj = ru * yv;
        k++;
    }
}

```

Answers

- A. 7 for statement coverage and 6 for decision coverage
- B. 2 for statement coverage and 2 for decision coverage
- C. 7 for statement coverage and 4 for decision coverage
- D. 5 for statement coverage and 3 for decision coverage
- E. 4 for statement coverage and 5 for decision coverage

Exercise 547

How many test cases are needed for statement and decision coverage of the following code?

```

FOR (w = 5; w < 16; w++)
{
    IF (zgy)
    {
        qyf = bb * eh;
    }
}
IF (rav)
{
    oa = 2;
    WHILE (mia || oa < 10)
    {
        t = zht * on;
        oa++;
    }
}
ELSE
{

```

```
syr = j * wxi;  
}
```

Answers

- A. 2 for statement coverage and 5 for decision coverage
- B. 2 for statement coverage and 2 for decision coverage
- C. 2 for statement coverage and 3 for decision coverage
- D. 5 for statement coverage and 4 for decision coverage
- E. 6 for statement coverage and 1 for decision coverage

Exercise 548

How many test cases are needed for statement and decision coverage of the following code?

```
IF (agp)  
{  
    kx = ax / z / cz;  
}  
IF (kb)  
{  
    xeq = -4;  
    WHILE (uc || xeq < 4)  
    {  
        jq = y - a;  
        xeq++;  
    }  
}
```

Answers

- A. 4 for statement coverage and 4 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 1 for statement coverage and 6 for decision coverage
- D. 1 for statement coverage and 7 for decision coverage
- E. 2 for statement coverage and 3 for decision coverage

Exercise 549

How many test cases are needed for statement and decision coverage of the following code?


```

u = bdn / lyv / txh;
IF (vh)
{
    SWITCH (b)
    {
        CASE 0:
            rt = rou - fg;
            break;
        CASE 1:
            g = dg + hvx - yc;
            break;
        DEFAULT:
            v = 1 * hsd / tt;
            break;
    }
}

```

Answers

- A. 1 for statement coverage and 8 for decision coverage
- B. 2 for statement coverage and 3 for decision coverage
- C. 6 for statement coverage and 6 for decision coverage
- D. 6 for statement coverage and 3 for decision coverage
- E. 3 for statement coverage and 4 for decision coverage

Exercise 550

How many test cases are needed for statement and decision coverage of the following code?

```

FOR (ok = 9; ok > 3; ok--)
{
    wwkk = 6;
    DO
    {
        mnn = zyc / z;
        wwkk--;
    }
    WHILE (qlg || wwkk > -2);
}
IF (nnz)
{
    IF (qjg)
    {
        kpa = xjv - s;
    }
}

```

Answers

- A. 5 for statement coverage and 2 for decision coverage
- B. 2 for statement coverage and 6 for decision coverage
- C. 6 for statement coverage and 1 for decision coverage
- D. 1 for statement coverage and 3 for decision coverage
- E. 5 for statement coverage and 3 for decision coverage

Exercise 551

How many test cases are needed for statement and decision coverage of the following code?

```
zx = u + hc + d;
FOR (qia = 4; qia < 15; qia++)
{
    vbv = uan - az + lqp;
}
qeg = ww / ver - eag;
```

Answers

- A. 6 for statement coverage and 3 for decision coverage
- B. 2 for statement coverage and 1 for decision coverage
- C. 1 for statement coverage and 1 for decision coverage
- D. 2 for statement coverage and 2 for decision coverage
- E. 3 for statement coverage and 2 for decision coverage

Exercise 552

How many test cases are needed for statement and decision coverage of the following code?

```
x = 6;
WHILE (jz || x > -6)
{
    eiy = 3;
    DO
    {
        eap = kg / pu;
        eiy++;
    }
    WHILE (co || eiy < 9);
    x--;
}
FOR (r = 6; r > 4; r--)
{
    FOR (qy = -1; qy > -9; qy--)
    {
        k = y * zhq - 1;
```

```

    }
}
IF (sew)
{
    tky = a * m * ll;
}

```

Answers

- A. 2 for statement coverage and 5 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 5 for statement coverage and 6 for decision coverage
- D. 3 for statement coverage and 1 for decision coverage
- E. 2 for statement coverage and 2 for decision coverage

Exercise 553

How many test cases are needed for statement and decision coverage of the following code?

```

FOR (s = -3; s < 6; s++)
{
    a = -8;
    DO
    {
        bj = xgp + nf - k;
        a++;
    }
    WHILE (pke || a < 2);
}
m = vtc / xdi;
SWITCH (yf)
{
    CASE 0:
        IF (ci)
        {
            ols = t * c;
        }
        break;
    CASE 1:
        IF (lzu)
        {
            v = pp / os;
        }
        ELSE
        {
            ad = is - pa + q;
        }
}

```

```

    break;
CASE 2:
    su = 1;
    WHILE (nux || su < 8)
    {
        ws = llx / kz;
        su++;
    }
    break;
DEFAULT:
    SWITCH (uvj)
    {
        CASE 0:
            riu = svx / ppu * z;
            break;
        CASE 1:
            qz = b + wlx + fkg;
            break;
        CASE 2:
            zap = zzu + d - zkf;
            break;
        DEFAULT:
            break;
    }
    break;
}

```

Answers

- A. 8 for statement coverage and 5 for decision coverage
- B. 6 for statement coverage and 5 for decision coverage
- C. 7 for statement coverage and 9 for decision coverage
- D. 8 for statement coverage and 9 for decision coverage
- E. 9 for statement coverage and 5 for decision coverage

Exercise 554

How many test cases are needed for statement and decision coverage of the following code?

```

ao = j * i * mtn;
FOR (dz = -8; dz < -5; dz++)
{
    IF (u1)
    {
        ww = cx - 1j;
    }
    ELSE
    {
        m = xab - pci;
    }
}
rbs = q - jzn * o;

```

Answers

- A. 2 for statement coverage and 3 for decision coverage
- B. 5 for statement coverage and 2 for decision coverage
- C. 2 for statement coverage and 2 for decision coverage
- D. 2 for statement coverage and 5 for decision coverage
- E. 3 for statement coverage and 4 for decision coverage

Exercise 555

How many test cases are needed for statement and decision coverage of the following code?

```

gt = -1;
WHILE (jtc || gt < 4)
{
    SWITCH (t)
    {
        CASE 0:
            gkq = suu + sv / aq;
            break;
        CASE 1:
            ocl = ze / e - y;
            break;
        DEFAULT:
            break;
    }
    gt++;
}
ycb = 20;
WHILE (qzq || ycb > 10)
{
    myv = 4;
    DO

```

```

{
    lob = k + u;
    myv++;
}
WHILE (onw || myv < 7);
ycb--;
}
q = rw / dn;

```

Answers

- A. 6 for statement coverage and 3 for decision coverage
- B. 3 for statement coverage and 6 for decision coverage
- C. 2 for statement coverage and 3 for decision coverage
- D. 1 for statement coverage and 5 for decision coverage
- E. 2 for statement coverage and 5 for decision coverage

Exercise 556

How many test cases are needed for statement and decision coverage of the following code?

```

IF (vz)
{
    m = t + pg - y;
}
ELSE
{
    kza = 1;
    WHILE (c || kza < 9)
    {
        u = rcq - wlv;
        kza++;
    }
}
SWITCH (ops)
{
    CASE 0:
        ilo = wb / f;
        break;
    CASE 1:
        IF (cn)
        {
            i = k / xo;
        }
        ELSE
        {
            sy = j * o;
        }
    }
}

```

```

    }
    break;
CASE 2:
    lf = -10;
    DO
    {
        wmn = uy * ob + nom;
        lf++;
    }
    WHILE (axx || lf < -6);
    break;
DEFAULT:
    qq = r - acy - qoi;
    break;
}
lt = 15;
WHILE (bwc || lt > 4)
{
    SWITCH (kdb)
    {
        CASE 0:
            wap = oqd + aw;
            break;
        CASE 1:
            akh = opk / e / pa;
            break;
        DEFAULT:
            break;
    }
    lt--;
}

```

Answers

- A. 5 for statement coverage and 3 for decision coverage
- B. 5 for statement coverage and 5 for decision coverage
- C. 8 for statement coverage and 2 for decision coverage
- D. 7 for statement coverage and 7 for decision coverage
- E. 6 for statement coverage and 5 for decision coverage

Exercise 557

How many test cases are needed for statement and decision coverage of the following code?

```

IF (os)
{
    i = cdu / xaw;
}
SWITCH (kox)
{
    CASE 0:
        IF (iu)
        {
            wo = mo + x;
        }
        break;
    CASE 1:
        uok = gbq * e;
        break;
    CASE 2:
        v = 1;
        DO
        {
            saf = aqr / htt * n1;
            v--;
        }
        WHILE (ju || v > -6);
        break;
    DEFAULT:
        break;
}
SWITCH (lw)
{
    CASE 0:
        IF (rn)
        {
            kdr = yn - sue;
        }
        ELSE
        {
            ev = smy + zsr - kmy;
        }
        break;
    CASE 1:
        gy = 3;
        WHILE (b || gy > -8)
        {
            ylb = q + wpu / ud;
            gy--;
        }
    }
}

```



```

    }
    break;
CASE 2:
    IF (nor)
    {
        jzd = jc * jcj;
    }
    ELSE
    {
        yh = zps - ive;
    }
    break;
DEFAULT:
    break;
}

```

Answers

- A. 8 for statement coverage and 5 for decision coverage
- B. 8 for statement coverage and 6 for decision coverage
- C. 5 for statement coverage and 6 for decision coverage
- D. 6 for statement coverage and 4 for decision coverage
- E. 3 for statement coverage and 8 for decision coverage

Exercise 558

How many test cases are needed for statement and decision coverage of the following code?

```

ewc = 15;
DO
{
    r = 6;
    WHILE (a || r > -1)
    {
        ckd = rr - jmg;
        r--;
    }
    ewc--;
}
WHILE (c || ewc > 9);
IF (vyw)
{
    mm = -14;
    WHILE (doz || mm < -8)
    {
        gs = 1 + mqj;
        mm++;
    }
}

```

```

    }
}
FOR (jjm = -8; jjm < 2; jjm++)
{
    IF (g)
    {
        vor = lw + k;
    }
}

```

Answers

- A. 5 for statement coverage and 6 for decision coverage
- B. 1 for statement coverage and 2 for decision coverage
- C. 1 for statement coverage and 5 for decision coverage
- D. 6 for statement coverage and 3 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 559

How many test cases are needed for statement and decision coverage of the following code?

```

FOR (t = 8; t < 19; t++)
{
    n = uyf - vl - esk;
}
FOR (c = -6; c > -12; c--)
{
    FOR (o = -4; o > -9; o--)
    {
        oas = wzo * g / j;
    }
}
FOR (vt = 4; vt > -3; vt--)
{
    fyk = -2;
    DO
    {
        bj = hpg / d - e;
        fyk++;
    }
    WHILE (z || fyk < 3);
}

```

Answers

- A. 6 for statement coverage and 2 for decision coverage
- B. 5 for statement coverage and 1 for decision coverage

- C. 2 for statement coverage and 6 for decision coverage
- D. 4 for statement coverage and 3 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 560

How many test cases are needed for statement and decision coverage of the following code?

```
vt = dac / q;
FOR (wnv = -1; wnv < 2; wnv++)
{
    FOR (o = 5; o > -2; o--)
    {
        h = low - hra / ic;
    }
}
IF (d)
{
    FOR (ckx = 10; ckx > -1; ckx--)
    {
        k = sc + et + ak;
    }
}
```

Answers

- A. 5 for statement coverage and 7 for decision coverage
- B. 6 for statement coverage and 4 for decision coverage
- C. 5 for statement coverage and 5 for decision coverage
- D. 1 for statement coverage and 3 for decision coverage
- E. 1 for statement coverage and 2 for decision coverage

Exercise 561

How many test cases are needed for statement and decision coverage of the following code?

```
tk = -4;
DO
{
    FOR (hr = 1; hr < 7; hr++)
    {
        gwj = me - pe / mwu;
    }
    tk++;
}
WHILE (s || tk < 0);
ez = -15;
```

```

DO
{
    SWITCH (m)
    {
        CASE 0:
            add = si / huz - b;
            break;
        CASE 1:
            c = fc - a - rqj;
            break;
        DEFAULT:
            cce = h - os / q;
            break;
    }
    ez++;
}
WHILE (e || ez < -9);
f = ij + jui;

```

Answers

- A. 3 for statement coverage and 4 for decision coverage
- B. 2 for statement coverage and 4 for decision coverage
- C. 7 for statement coverage and 6 for decision coverage
- D. 3 for statement coverage and 3 for decision coverage
- E. 2 for statement coverage and 7 for decision coverage

Exercise 562

How many test cases are needed for statement and decision coverage of the following code?

```

ch = 22;
DO
{
    mj = tf / te;
    ch--;
}
WHILE (ew || ch > 10);
zh = -8;
WHILE (wc || zh < 2)
{
    SWITCH (ho)
    {
        CASE 0:
            mew = lm / jr;
            break;
        CASE 1:

```

```

        h = pcc - ltg + rb;
        break;
CASE 2:
    v = zqs - w + cf;
    break;
    DEFAULT:
        break;
    }
    zh++;
}
IF (qe)
{
    rec = dx - t;
}
ELSE
{
    cm = 7;
    DO
    {
        o = hnt + dw;
        cm--;
    }
    WHILE (d || cm > -2);
}

```

Answers

- A. 2 for statement coverage and 5 for decision coverage
- B. 3 for statement coverage and 4 for decision coverage
- C. 2 for statement coverage and 4 for decision coverage
- D. 7 for statement coverage and 9 for decision coverage
- E. 7 for statement coverage and 5 for decision coverage

Exercise 563

How many test cases are needed for statement and decision coverage of the following code?

```

IF (o1)
{
    o = dwv + x;
}
ELSE
{
    FOR (gva = -5; gva > -9; gva--)
    {
        ez = dn + on - cr;
    }
}

```

```

}
IF (jmu)
{
    IF (m)
    {
        ts = yf + fd * ym;
    }
    ELSE
    {
        sxt = agz + nd;
    }
}
IF (jkd)
{
    wi = old + ro / g;
}
ELSE
{
    FOR (rjr = 2; rjr > -7; rjr--)
    {
        wla = vuc * l - rhl;
    }
}

```

Answers

- A. 2 for statement coverage and 5 for decision coverage
- B. 2 for statement coverage and 3 for decision coverage
- C. 4 for statement coverage and 2 for decision coverage
- D. 2 for statement coverage and 4 for decision coverage
- E. 4 for statement coverage and 6 for decision coverage

Exercise 564

How many test cases are needed for statement and decision coverage of the following code?

```

IF (k)
{
    FOR (tu = -9; tu > -17; tu--)
    {
        j = pb * nj - ng;
    }
}
IF (vj)
{
    elh = 16;
    WHILE (rs || elh > 9)

```

```

{
    f = hw * xh + loj;
    elh--;
}
}
c = -2;
WHILE (am || c < 9)
{
    FOR (zho = 2; zho > -2; zho--)
    {
        e = ri - iwk;
    }
    c++;
}

```

Answers

- A. 6 for statement coverage and 1 for decision coverage
- B. 5 for statement coverage and 3 for decision coverage
- C. 3 for statement coverage and 4 for decision coverage
- D. 1 for statement coverage and 2 for decision coverage
- E. 5 for statement coverage and 5 for decision coverage

Exercise 565

How many test cases are needed for statement and decision coverage of the following code?

```

IF (ywu)
{
    IF (x)
    {
        v = jdk + bae;
    }
}
ELSE
{
    mti = 15;
    DO
    {
        mvr = m / xzz / p;
        mti--;
    }
    WHILE (awf || mti > 9);
}
IF (bbu)
{
    bn = ui - ff - u;
}

```

```

}
mi = 9;
DO
{
    SWITCH (h)
    {
        CASE 0:
            n = df + qkq / lgp;
            break;
        CASE 1:
            k = c * vvn * t;
            break;
        DEFAULT:
            break;
    }
    mi--;
}
WHILE (a || mi > -1);

```

Answers

- A. 1 for statement coverage and 2 for decision coverage
- B. 2 for statement coverage and 3 for decision coverage
- C. 6 for statement coverage and 2 for decision coverage
- D. 5 for statement coverage and 4 for decision coverage
- E. 6 for statement coverage and 5 for decision coverage

Exercise 566

How many test cases are needed for statement and decision coverage of the following code?

```

IF (e)
{
    mkg = 13;
    WHILE (au || mkg > 7)
    {
        o = lrx * m;
        mkg--;
    }
}
ELSE
{
    FOR (xyd = 2; xyd > -5; xyd--)
    {
        cta = jys / na / xlz;
    }
}

```



```

IF (y)
{
    SWITCH (ysw)
    {
        CASE 0:
            guh = b / ee - tnd;
            break;
        CASE 1:
            oxi = n + cg;
            break;
        DEFAULT:
            od = js / hr - ibs;
            break;
    }
}
ELSE
{
    FOR (r = 2; r > -3; r--)
    {
        jgm = j / ahf;
    }
}
gz = 4;
DO
{
    ldj = umm + jkf;
    gz--;
}
WHILE (hoz || gz > -5);

```

Answers

- A. 6 for statement coverage and 5 for decision coverage
- B. 3 for statement coverage and 5 for decision coverage
- C. 2 for statement coverage and 7 for decision coverage
- D. 4 for statement coverage and 4 for decision coverage
- E. 5 for statement coverage and 5 for decision coverage

Exercise 567

How many test cases are needed for statement and decision coverage of the following code?

```

c = otz * k + gn;
ki = 1 + sa + r;
SWITCH (woo)
{
    CASE 0:
        px = zmr / zxl / v;
        break;
    CASE 1:
        rf = 2;
        DO
        {
            zaf = mu - is;
            rf++;
        }
        WHILE (raa || rf < 7);
        break;
    DEFAULT:
        IF (rjx)
        {
            p = u / d;
        }
        break;
}

```

Answers

- A. 1 for statement coverage and 1 for decision coverage
- B. 3 for statement coverage and 6 for decision coverage
- C. 5 for statement coverage and 1 for decision coverage
- D. 3 for statement coverage and 4 for decision coverage
- E. 2 for statement coverage and 5 for decision coverage

Exercise 568

How many test cases are needed for statement and decision coverage of the following code?

```

xds = h1 + tal + ohg;
IF (tbc)
{
    csu = b + in / fv;
}
ELSE
{
    c = 0;
    DO
    {
        p = pt / akc;
    }
}

```

```

    c++;
}
WHILE (oa || c < 8);
}
FOR (mqe = -5; mqe > -8; mqe--)
{
    SWITCH (q)
    {
        CASE 0:
            jd = ttd + mre + k;
            break;
        CASE 1:
            ma = jsu / grt + w;
            break;
            DEFAULT:
            break;
    }
}

```

Answers

- A. 2 for statement coverage and 3 for decision coverage
- B. 2 for statement coverage and 5 for decision coverage
- C. 1 for statement coverage and 7 for decision coverage
- D. 6 for statement coverage and 4 for decision coverage
- E. 3 for statement coverage and 3 for decision coverage

Exercise 569

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (j)
{
    CASE 0:
        FOR (vx = 0; vx < 11; vx++)
        {
            vo = fzl / st + eg;
        }
        break;
    CASE 1:
        IF (vd)
        {
            lsa = fjs * i / s;
        }
        break;
    CASE 2:
        SWITCH (tj)

```

```

    {
        CASE 0:
            tmf = w + rbo;
            break;
        CASE 1:
            ehq = p + wtz / frr;
            break;
        CASE 2:
            ki = jaq + otu * kg;
            break;
        DEFAULT:
            t = pj / y - c;
            break;
    }
    break;
DEFAULT:
    break;
}
IF (yx)
{
    n1 = 15;
    DO
    {
        hgs = q * z / imp;
        n1--;
    }
    WHILE (r || n1 > 7);
}
ELSE
{
    SWITCH (ji)
    {
        CASE 0:
            pha = zj + km + orf;
            break;
        CASE 1:
            isx = tv / u;
            break;
        DEFAULT:
            hwv = v - xy + tgz;
            break;
    }
}
SWITCH (ic)
{

```

```

CASE 0:
    qaj = vg - kv;
    break;
CASE 1:
    FOR (ec = -5; ec > -11; ec--)
    {
        et = gw - vw1 * yq;
    }
    break;
DEFAULT:
    break;
}

```

Answers

- A. 10 for statement coverage and 8 for decision coverage
- B. 9 for statement coverage and 11 for decision coverage
- C. 6 for statement coverage and 8 for decision coverage
- D. 10 for statement coverage and 11 for decision coverage
- E. 7 for statement coverage and 7 for decision coverage

Exercise 570

How many test cases are needed for statement and decision coverage of the following code?

```

IF (amq)
{
    SWITCH (shd)
    {
        CASE 0:
            vs = geu / sc;
            break;
        CASE 1:
            q = tmq / yc + e;
            break;
        CASE 2:
            wpb = dz - rrh * py;
            break;
        DEFAULT:
            break;
    }
}
IF (uk)
{
    b = -9;
    DO
    {

```

```

    yxh = rw / m;
    b++;
}
WHILE (cy || b < -2);
}
c = qz - t + znr;

```

Answers

- A. 7 for statement coverage and 3 for decision coverage
- B. 6 for statement coverage and 7 for decision coverage
- C. 3 for statement coverage and 5 for decision coverage
- D. 5 for statement coverage and 8 for decision coverage
- E. 7 for statement coverage and 4 for decision coverage

Exercise 571

How many test cases are needed for statement and decision coverage of the following code?

```

nu = dt / m - dq;
SWITCH (sgn)
{
    CASE 0:
        q = -7;
        DO
        {
            hg = pv / gpq * jk;
            q++;
        }
        WHILE (td || q < 1);
        break;
    CASE 1:
        IF (myn)
        {
            IF (mu)
            {
                zy = fh / jjn;
            }
            ELSE
            {
                uof = axf * ju * hj;
            }
        }
        break;
    CASE 2:
        jj = rw * jaq;
        break;
}

```

```

    DEFAULT:
        break;
}

```

Answers

- A. 4 for statement coverage and 6 for decision coverage
- B. 8 for statement coverage and 6 for decision coverage
- C. 8 for statement coverage and 4 for decision coverage
- D. 5 for statement coverage and 6 for decision coverage
- E. 4 for statement coverage and 8 for decision coverage

Exercise 572

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (fxm)
{
    CASE 0:
        IF (ir)
        {
            IF (v)
            {
                bgj = m - fjc;
            }
            ELSE
            {
                jtl = k - o - a;
            }
        }
        break;
    CASE 1:
        IF (cp)
        {
            qw = -5;
            DO
            {
                dp = bon + 1;
                qw++;
            }
            WHILE (sfh || qw < 0);
        }
        ELSE
        {
            c = -2;
            WHILE (qp || c < 7)
            {

```

```

        i = tv * gww + ivm;
        c++;
    }
}
break;
DEFAULT:
    break;
}
rh = 6;
WHILE (hli || rh > 3)
{
    e = 11;
    WHILE (s1 || e > 4)
    {
        IF (lhs)
        {
            ipt = tph * usk;
        }
        ELSE
        {
            g = yho * ld;
        }
        e--;
    }
    rh--;
}

```

Answers

- A. 5 for statement coverage and 6 for decision coverage
- B. 4 for statement coverage and 4 for decision coverage
- C. 7 for statement coverage and 7 for decision coverage
- D. 4 for statement coverage and 6 for decision coverage
- E. 4 for statement coverage and 7 for decision coverage

Exercise 573

How many test cases are needed for statement and decision coverage of the following code?


```

IF (zom)
{
  IF (lo)
  {
    i = -13;
    DO
    {
      ef = ih / tl;
      i++;
    }
    WHILE (b || i < -3);
  }
}
FOR (s = 10; s > 7; s--)
{
  ufn = 1;
  WHILE (ji || ufn < 5)
  {
    sgv = bfl + t;
    ufn++;
  }
}

```

Answers

- A. 2 for statement coverage and 1 for decision coverage
- B. 1 for statement coverage and 3 for decision coverage
- C. 4 for statement coverage and 2 for decision coverage
- D. 6 for statement coverage and 6 for decision coverage
- E. 3 for statement coverage and 1 for decision coverage

Exercise 574

How many test cases are needed for statement and decision coverage of the following code?

```

ovr = eky + nxp;
IF (cvv)
{
  IF (py)
  {
    FOR (jo = 3; jo > -3; jo--)
    {
      tu = egk + e;
    }
  }
}

```

Answers

- A. 6 for statement coverage and 1 for decision coverage
- B. 1 for statement coverage and 3 for decision coverage
- C. 3 for statement coverage and 5 for decision coverage
- D. 6 for statement coverage and 3 for decision coverage
- E. 2 for statement coverage and 5 for decision coverage

Exercise 575

How many test cases are needed for statement and decision coverage of the following code?

```

IF (nq)
{
    IF (h)
    {
        kde = -2;
        DO
        {
            oeu = irx / hx;
            kde++;
        }
        WHILE (r || kde < 4);
    }
}
ELSE
{
    vg = 11;
    DO
    {
        rf = o - xk * a;
        vg--;
    }
    WHILE (uq || vg > 7);
}
IF (lw)
{
    qu = -2;
    WHILE (b || qu < 3)
    {
        IF (ir)
        {
            u = yu * zsd + jzi;
        }
        ELSE
        {
            pc = hir * lb;
        }
    }
}

```

```

    }
    qu++;
}
}
ELSE
{
    sca = -12;
    WHILE (kkk || sca < -3)
    {
        FOR (lf = 0; lf > -11; lf--)
        {
            y = g + rzf;
        }
        sca++;
    }
}

```

Answers

- A. 1 for statement coverage and 3 for decision coverage
- B. 4 for statement coverage and 3 for decision coverage
- C. 3 for statement coverage and 3 for decision coverage
- D. 3 for statement coverage and 8 for decision coverage
- E. 2 for statement coverage and 3 for decision coverage

Exercise 576

How many test cases are needed for statement and decision coverage of the following code?

```

bu = gir + rg;
slc = -18;
DO
{
    SWITCH (vvf)
    {
        CASE 0:
            IF (bo)
            {
                bg = kvv / ua * qmj;
            }
            ELSE
            {
                nc = vll * elr - xuy;
            }
            break;
        CASE 1:
            FOR (rw = 8; rw > -1; rw--)

```

```

    {
        fyf = cmj - v / ixc;
    }
    break;
CASE 2:
    kee = -17;
    WHILE (mg || kee < -6)
    {
        uok = dc - m * tmi;
        kee++;
    }
    break;
    DEFAULT:
    break;
}
slc++;
}
WHILE (d || slc < -3);

```

Answers

- A. 4 for statement coverage and 8 for decision coverage
- B. 4 for statement coverage and 5 for decision coverage
- C. 4 for statement coverage and 4 for decision coverage
- D. 2 for statement coverage and 8 for decision coverage
- E. 1 for statement coverage and 8 for decision coverage

Exercise 577

How many test cases are needed for statement and decision coverage of the following code?

```

y = i + verr;
cq = kzh - zq;

```

Answers

- A. 6 for statement coverage and 5 for decision coverage
- B. 4 for statement coverage and 4 for decision coverage
- C. 3 for statement coverage and 4 for decision coverage
- D. 1 for statement coverage and 1 for decision coverage
- E. 5 for statement coverage and 2 for decision coverage

Exercise 578

How many test cases are needed for statement and decision coverage of the following code?

```

tvw = 1;
WHILE (oeh || tvw > -9)
{
    v = xm + aer - sd;
    tvw--;
}
FOR (yjx = -2; yjx > -13; yjx--)
{
    gxh = 0;
    DO
    {
        xsd = mev / y / o;
        gxh++;
    }
    WHILE (tk || gxh < 6);
}

```

Answers

- A. 3 for statement coverage and 5 for decision coverage
- B. 4 for statement coverage and 4 for decision coverage
- C. 2 for statement coverage and 1 for decision coverage
- D. 5 for statement coverage and 2 for decision coverage
- E. 1 for statement coverage and 1 for decision coverage

Exercise 579

How many test cases are needed for statement and decision coverage of the following code?

```

no = th / rt;
IF (j)
{
    ic = oma * duj;
}

```

Answers

- A. 1 for statement coverage and 1 for decision coverage
- B. 6 for statement coverage and 2 for decision coverage
- C. 2 for statement coverage and 3 for decision coverage
- D. 1 for statement coverage and 2 for decision coverage
- E. 6 for statement coverage and 5 for decision coverage

Exercise 580

How many test cases are needed for statement and decision coverage of the following code?

```

IF (hbd)
{
    lgv = 4;
    WHILE (qq || lgv > 1)
    {
        ht = kg - jyx;
        lgv--;
    }
}
ELSE
{
    IF (vk)
    {
        FOR (kc = 6; kc > -5; kc--)
        {
            at = lwy * h - hhd;
        }
    }
    ELSE
    {
        SWITCH (rb)
        {
            CASE 0:
                z = t - so - ksg;
                break;
            CASE 1:
                yxe = qq * gjf - uab;
                break;
            CASE 2:
                k = bh * r + m;
                break;
            DEFAULT:
                q = xx / pd + kb;
                break;
        }
    }
}
SWITCH (lhn)
{
    CASE 0:
        FOR (tcx = -6; tcx > -14; tcx--)
        {
            hw = -2;
            WHILE (a || hw > -9)
            {

```

```

        tzt = ck / qf - rwi;
        hw--;
    }
}
break;
CASE 1:
    srn = on - wi + ai;
    break;
DEFAULT:
    break;
}

```

Answers

- A. 4 for statement coverage and 2 for decision coverage
- B. 2 for statement coverage and 7 for decision coverage
- C. 3 for statement coverage and 3 for decision coverage
- D. 6 for statement coverage and 6 for decision coverage
- E. 4 for statement coverage and 4 for decision coverage

Exercise 581

How many test cases are needed for statement and decision coverage of the following code?

```

IF (ws)
{
    SWITCH (i)
    {
        CASE 0:
            FOR (oeu = 6; oeu > 1; oeu--)
            {
                od = a + aed - eph;
            }
            break;
        CASE 1:
            FOR (ncc = -6; ncc > -13; ncc--)
            {
                e = m + bqo - mb;
            }
            break;
            DEFAULT:
            break;
    }
}
c = shq + tnv / bvr;

```

Answers

- A. 4 for statement coverage and 6 for decision coverage
- B. 6 for statement coverage and 5 for decision coverage
- C. 2 for statement coverage and 4 for decision coverage
- D. 2 for statement coverage and 5 for decision coverage
- E. 4 for statement coverage and 2 for decision coverage

Exercise 582

How many test cases are needed for statement and decision coverage of the following code?

```
FOR (gy = 0; gy > -6; gy--)
{
    an = cf / qrj;
}
IF (r)
{
    FOR (ekj = -6; ekj < -4; ekj++)
    {
        IF (1)
        {
            pqw = rqg * oa;
        }
    }
}
```

Answers

- A. 5 for statement coverage and 5 for decision coverage
- B. 2 for statement coverage and 5 for decision coverage
- C. 6 for statement coverage and 4 for decision coverage
- D. 1 for statement coverage and 5 for decision coverage
- E. 1 for statement coverage and 3 for decision coverage

Exercise 583

How many test cases are needed for statement and decision coverage of the following code?

```
SWITCH (tmk)
{
    CASE 0:
        z = -7;
        WHILE (e || z < 2)
        {
            SWITCH (mz)
            {
                CASE 0:
                    ryu = y + at;
```



```

        break;
CASE 1:
    vqq = w * am / v;
    break;
DEFAULT:
    bfj = iul + it + me;
    break;
    }
    z++;
    }
    break;
CASE 1:
    IF (mm)
    {
        FOR (c = 4; c > 2; c--)
        {
            aem = cff + gt;
        }
    }
    break;
DEFAULT:
    break;
}
ims = -9;
DO
{
    SWITCH (cwq)
    {
        CASE 0:
            SWITCH (io)
            {
                CASE 0:
                    rex = r + nvq - yg;
                    break;
                CASE 1:
                    t = kg + chb;
                    break;
                CASE 2:
                    uu = bin / an - kn;
                    break;
                    DEFAULT:
                    break;
            }
        break;
CASE 1:

```

```

    dc = 2;
    DO
    {
        u = dj - jmb;
        dc--;
    }
    WHILE (ca || dc > -9);
    break;
DEFAULT:
    ak = 4;
    WHILE (j || ak > -2)
    {
        xvh = qsk + dq;
        ak--;
    }
    break;
}
ims++;
}
WHILE (srq || ims < 8);

```

Answers

- A. 5 for statement coverage and 5 for decision coverage
- B. 5 for statement coverage and 6 for decision coverage
- C. 8 for statement coverage and 8 for decision coverage
- D. 9 for statement coverage and 5 for decision coverage
- E. 6 for statement coverage and 6 for decision coverage

Exercise 584

How many test cases are needed for statement and decision coverage of the following code?

```

cif = 17;
WHILE (eqp || cif > 5)
{
    IF (kf)
    {
        FOR (j = -6; j < -3; j++)
        {
            x = men + uj * f;
        }
    }
    cif--;
}
FOR (ocq = 2; ocq > -6; ocq--)
{

```

```

    w = g * urj * l;
}

```

Answers

- A. 5 for statement coverage and 5 for decision coverage
- B. 1 for statement coverage and 4 for decision coverage
- C. 3 for statement coverage and 2 for decision coverage
- D. 1 for statement coverage and 2 for decision coverage
- E. 2 for statement coverage and 6 for decision coverage

Exercise 585

How many test cases are needed for statement and decision coverage of the following code?

```

lxn = 19;
DO
{
    bel = 13;
    WHILE (h || bel > 4)
    {
        sc = 18;
        DO
        {
            gjx = vq - zpn;
            sc--;
        }
        WHILE (emv || sc > 9);
        bel--;
    }
    lxn--;
}
WHILE (m || lxn > 9);
IF (q)
{
    wq = -5;
    DO
    {
        IF (k)
        {
            gw = sba / dtj / bz;
        }
        wq++;
    }
    WHILE (tp || wq < 5);
}
ELSE

```

```

{
  FOR (hvu = 7; hvu < 14; hvu++)
  {
    IF (c11)
    {
      gzz = x * dka;
    }
    ELSE
    {
      mab = il + rly + vun;
    }
  }
}

```

Answers

- A. 6 for statement coverage and 5 for decision coverage
- B. 5 for statement coverage and 2 for decision coverage
- C. 3 for statement coverage and 6 for decision coverage
- D. 3 for statement coverage and 4 for decision coverage
- E. 1 for statement coverage and 7 for decision coverage

Exercise 586

How many test cases are needed for statement and decision coverage of the following code?

```

gyh = -7;
DO
{
  IF (ctx)
  {
    SWITCH (n)
    {
      CASE 0:
        u = m + s * aa;
        break;
      CASE 1:
        d = q + hw;
        break;
      CASE 2:
        bdd = vq * pxy;
        break;
      DEFAULT:
        break;
    }
  }
}
ELSE

```

```

{
    SWITCH (g)
    {
        CASE 0:
            gj = dfz / o + y;
            break;
        CASE 1:
            gf = xhp * i;
            break;
            DEFAULT:
            break;
    }
}
gyh++;
}
WHILE (a || gyh < 8);
mc = di - ik + uk;

```

Answers

- A. 8 for statement coverage and 12 for decision coverage
- B. 4 for statement coverage and 12 for decision coverage
- C. 5 for statement coverage and 7 for decision coverage
- D. 3 for statement coverage and 9 for decision coverage
- E. 5 for statement coverage and 9 for decision coverage

Exercise 587

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (oku)
{
    CASE 0:
        q = -14;
        DO
        {
            IF (mty)
            {
                h = g * ivy;
            }
            q++;
        }
        WHILE (ha || q < -2);
        break;
    CASE 1:
        fb = vj - es;
        break;
}

```

```

    DEFAULT:
        break;
}
hc = 24;
WHILE (1 || hc > 7)
{
    SWITCH (ylw)
    {
        CASE 0:
            IF (ulh)
            {
                cpq = bk / r;
            }
            break;
        CASE 1:
            IF (bxu)
            {
                jbr = ea / gnk + nos;
            }
            break;
        CASE 2:
            kiz = -5;
            DO
            {
                rm = dzx / uo - oqk;
                kiz++;
            }
            WHILE (yo || kiz < 5);
            break;
        DEFAULT:
            IF (c)
            {
                al = i + qbo;
            }
            ELSE
            {
                mq = ucm * le + toi;
            }
            break;
    }
    hc--;
}

```

Answers

A. 5 for statement coverage and 7 for decision coverage

- B. 7 for statement coverage and 8 for decision coverage
- C. 9 for statement coverage and 12 for decision coverage
- D. 7 for statement coverage and 9 for decision coverage
- E. 8 for statement coverage and 7 for decision coverage

Exercise 588

How many test cases are needed for statement and decision coverage of the following code?

```

xx = -3;
WHILE (m || xx < 2)
{
    FOR (vm = -7; vm > -9; vm--)
    {
        si = 18;
        DO
        {
            fl = d / crr;
            si--;
        }
        WHILE (jkn || si > 6);
    }
    xx++;
}
SWITCH (ao)
{
    CASE 0:
        SWITCH (c)
        {
            CASE 0:
                SWITCH (q)
                {
                    CASE 0:
                        xc = o * yts / pmm;
                        break;
                    CASE 1:
                        a = vur * gu;
                        break;
                    CASE 2:
                        tnn = vp - pgc;
                        break;
                    DEFAULT:
                        u = ryw * vsy / t;
                        break;
                }
            break;
        }
    break;
}

```

```

CASE 1:
    mtc = 1;
    DO
    {
        njx = ang + v;
        mtc++;
    }
    WHILE (j || mtc < 5);
    break;
CASE 2:
    IF (lt1)
    {
        dg = e + kp * qk;
    }
    ELSE
    {
        ve = mgu * qea + mm;
    }
    break;
    DEFAULT:
    break;
}
break;
CASE 1:
    IF (w)
    {
        g = ns - pq + ej1;
    }
    break;
CASE 2:
    SWITCH (s)
    {
        CASE 0:
            IF (uj)
            {
                pmv = lt / gt - k;
            }
            ELSE
            {
                di = ynp + rqs;
            }
            break;
        CASE 1:
            IF (h)
            {

```



```

        rim = ouc * bif / jib;
    }
    break;
CASE 2:
    SWITCH (kg)
    {
        CASE 0:
            pht = dto + oxd / mr;
            break;
        CASE 1:
            qia = njs + uv + y;
            break;
        CASE 2:
            qt = esv * mn + mpt;
            break;
        DEFAULT:
            break;
    }
    break;
DEFAULT:
    IF (hn)
    {
        fuy = ihc - wo * fru;
    }
    break;
}
break;
DEFAULT:
break;
}

```

Answers

- A. 18 for statement coverage and 21 for decision coverage
- B. 15 for statement coverage and 18 for decision coverage
- C. 17 for statement coverage and 17 for decision coverage
- D. 15 for statement coverage and 21 for decision coverage
- E. 14 for statement coverage and 19 for decision coverage

Exercise 589

How many test cases are needed for statement and decision coverage of the following code?

```

lgc = xr + ubt / o;
fr = -5;
DO
{
    zw = -3;
    WHILE (ym || zw > -7)
    {
        FOR (zwx = -3; zwx < 5; zwx++)
        {
            li = fe + si / syz;
        }
        zw--;
    }
    fr++;
}
WHILE (xgh || fr < 2);

```

Answers

- A. 5 for statement coverage and 6 for decision coverage
- B. 6 for statement coverage and 2 for decision coverage
- C. 3 for statement coverage and 3 for decision coverage
- D. 1 for statement coverage and 1 for decision coverage
- E. 1 for statement coverage and 4 for decision coverage

Exercise 590

How many test cases are needed for statement and decision coverage of the following code?

```

pma = -10;
DO
{
    kem = -2;
    DO
    {
        FOR (acd = 10; acd < 19; acd++)
        {
            fad = oe - hk * ki;
        }
        kem++;
    }
    WHILE (am || kem < 1);
    pma++;
}
WHILE (zaa || pma < 2);
IF (qe)
{

```

```

1k = 3;
WHILE (pjj || 1k > -6)
{
    h = -14;
    DO
    {
        a = fpb * ts * yx;
        h++;
    }
    WHILE (tol || h < -4);
    1k--;
}
}
ELSE
{
    hcq = lam - p;
}

```

Answers

- A. 7 for statement coverage and 1 for decision coverage
- B. 2 for statement coverage and 4 for decision coverage
- C. 7 for statement coverage and 6 for decision coverage
- D. 2 for statement coverage and 2 for decision coverage
- E. 5 for statement coverage and 3 for decision coverage

Exercise 591

How many test cases are needed for statement and decision coverage of the following code?

```

FOR (a = 4; a < 11; a++)
{
    wvx = txq * yhu;
}
qm = -8;
DO
{
    san = 21;
    WHILE (lff || san > 9)
    {
        aje = -17;
        DO
        {
            th = itt / ekj;
            aje++;
        }
        WHILE (rs || aje < -7);
    }
}

```

```

    san--;
}
qm++;
}
WHILE (asf || qm < 4);
IF (ldt)
{
    v = -16;
    WHILE (eq || v < -4)
    {
        IF (uea)
        {
            tab = f + dzr;
        }
        ELSE
        {
            wlp = xti - e;
        }
        v++;
    }
}
ELSE
{
    IF (eck)
    {
        c = -2;
        DO
        {
            h = rye / qud + rlt;
            c--;
        }
        WHILE (b || c > -8);
    }
}

```

Answers

- A. 3 for statement coverage and 4 for decision coverage
- B. 6 for statement coverage and 4 for decision coverage
- C. 1 for statement coverage and 7 for decision coverage
- D. 4 for statement coverage and 2 for decision coverage
- E. 5 for statement coverage and 7 for decision coverage

Exercise 592

How many test cases are needed for statement and decision coverage of the following code?

```

v = zi / g + udc;
vaf = -3;
WHILE (f || vaf < 4)
{
    be = -2;
    WHILE (qir || be > -9)
    {
        IF (lci)
        {
            y = t - nz;
        }
        ELSE
        {
            vq = b + shf;
        }
        be--;
    }
    vaf++;
}
bdf = 5;
DO
{
    vzx = mvu / xm;
    bdf--;
}
WHILE (vli || bdf > 2);

```

Answers

- A. 5 for statement coverage and 4 for decision coverage
- B. 5 for statement coverage and 1 for decision coverage
- C. 2 for statement coverage and 3 for decision coverage
- D. 2 for statement coverage and 2 for decision coverage
- E. 4 for statement coverage and 1 for decision coverage

Exercise 593

How many test cases are needed for statement and decision coverage of the following code?

```
dk = 4;
WHILE (ohi || dk > -4)
{
    IF (q)
    {
        gk = wvk * t;
    }
    ELSE
    {
        FOR (ste = 10; ste > 5; ste--)
        {
            zez = ptt * sso;
        }
    }
    dk--;
}
w = x / tws;
gib = 19;
DO
{
    IF (cp)
    {
        en = d - fm * qdi;
    }
    gib--;
}
WHILE (vb || gib > 10);
```

Answers

- A. 3 for statement coverage and 5 for decision coverage
- B. 2 for statement coverage and 2 for decision coverage
- C. 7 for statement coverage and 3 for decision coverage
- D. 3 for statement coverage and 2 for decision coverage
- E. 6 for statement coverage and 1 for decision coverage

Exercise 594

How many test cases are needed for statement and decision coverage of the following code?

```

FOR (lf = 4; lf < 10; lf++)
{
    FOR (c = -3; c < 4; c++)
    {
        FOR (i = 7; i > 1; i--)
        {
            upy = xb + um + 11;
        }
    }
}
IF (yy)
{
    vc = kqg - xs / fft;
}
mjt = -11;
WHILE (pvo || mjt < -2)
{
    h = -2;
    DO
    {
        v = 11;
        WHILE (re || v > 8)
        {
            p = qkq + wg;
            v--;
        }
        h++;
    }
    WHILE (r || h < 3);
    mjt++;
}

```

Answers

- A. 2 for statement coverage and 2 for decision coverage
- B. 5 for statement coverage and 6 for decision coverage
- C. 5 for statement coverage and 5 for decision coverage
- D. 3 for statement coverage and 6 for decision coverage
- E. 1 for statement coverage and 2 for decision coverage

Exercise 595

How many test cases are needed for statement and decision coverage of the following code?

```

IF (qe)
{
    wib = 13;
    WHILE (vz || wib > 8)
    {
        l = cdh * o * d;
        wib--;
    }
}
ELSE
{
    IF (sgv)
    {
        FOR (b = -9; b < -1; b++)
        {
            s = pq / dls / cum;
        }
    }
}
e = 1;
DO
{
    IF (tv)
    {
        FOR (eo = -9; eo > -16; eo--)
        {
            kg = zv * eeo * wo;
        }
    }
    e--;
}
WHILE (rhh || e > -7);
SWITCH (v)
{
    CASE 0:
        dwn = 7;
        DO
        {
            br = -1;
            DO
            {
                ji = gij / tmx;
                br--;
            }
            WHILE (vc || br > -7);

```



```

    dwn--;
}
WHILE (ttw || dwn > 1);
break;
CASE 1:
SWITCH (td)
{
    CASE 0:
        IF (us)
        {
            sj = i - lh / x;
        }
        ELSE
        {
            uq = ef + hwi + vai;
        }
        break;
    CASE 1:
        yj = 0;
        WHILE (vu || yj > -7)
        {
            j = xnk - tvz;
            yj--;
        }
        break;
    DEFAULT:
        kre = 5;
        DO
        {
            bd = xn * vl - inh;
            kre++;
        }
        WHILE (up || kre < 8);
        break;
}
break;
CASE 2:
IF (ovn)
{
    ly1 = u - mt / zcl;
}
ELSE
{
    pag = 7;
    WHILE (jya || pag > 3)

```

```

    {
        pog = r - uao * oly;
        pag--;
    }
}
break;
DEFAULT:
break;
}

```

Answers

- A. 7 for statement coverage and 8 for decision coverage
- B. 7 for statement coverage and 5 for decision coverage
- C. 5 for statement coverage and 5 for decision coverage
- D. 7 for statement coverage and 10 for decision coverage
- E. 8 for statement coverage and 10 for decision coverage

Exercise 596

How many test cases are needed for statement and decision coverage of the following code?

```

FOR (z = -4; z > -11; z--)
{
    SWITCH (n)
    {
        CASE 0:
            w = -2;
            DO
            {
                mqw = bcr - kjr;
                w++;
            }
            WHILE (oy || w < 10);
            break;
        CASE 1:
            FOR (idv = -9; idv < -6; idv++)
            {
                do = tdb * vez - fqd;
            }
            break;
        CASE 2:
            co = 13;
            DO
            {
                j = hh + c;
                co--;
            }
            WHILE (co > 0);
    }
}

```

```

    }
    WHILE (1e || co > 9);
    break;
DEFAULT:
    IF (f)
    {
        g = onl - mnt;
    }
    ELSE
    {
        blg = p * m * kqn;
    }
    break;
}
}
SWITCH (ry)
{
    CASE 0:
        IF (pke)
        {
            ijt = -7;
            DO
            {
                o = lxl / kqu - fkq;
                ijt++;
            }
            WHILE (ofn || ijt < -3);
        }
        break;
    CASE 1:
        bn = i / duo;
        break;
    DEFAULT:
        break;
}
SWITCH (pm)
{
    CASE 0:
        IF (wo)
        {
            mz = 20;
            WHILE (pqz || mz > 9)
            {
                ou = cjc * wst / oor;
                mz--;
            }
        }
    }
}

```

```

    }
  }
  break;
CASE 1:
  FOR (vm = -2; vm < 5; vm++)
  {
    qg = 9;
    DO
    {
      twk = ts + hs + tc;
      qg--;
    }
    WHILE (hmv || qg > 2);
  }
  break;
CASE 2:
  FOR (ryh = 2; ryh < 9; ryh++)
  {
    IF (cls)
    {
      dvs = ers * zwn;
    }
  }
  break;
DEFAULT:
  break;
}

```

Answers

- A. 8 for statement coverage and 7 for decision coverage
- B. 7 for statement coverage and 10 for decision coverage
- C. 5 for statement coverage and 6 for decision coverage
- D. 6 for statement coverage and 10 for decision coverage
- E. 5 for statement coverage and 7 for decision coverage

Exercise 597

How many test cases are needed for statement and decision coverage of the following code?

```

SWITCH (gq)
{
    CASE 0:
        FOR (oa = -7; oa < -3; oa++)
        {
            ruv = n + wyw - c;
        }
        break;
    CASE 1:
        FOR (g = 4; g > -2; g--)
        {
            h = -10;
            WHILE (rtu || h < 2)
            {
                exv = hbd + dn + mnv;
                h++;
            }
        }
        break;
    DEFAULT:
        FOR (d = 1; d > -2; d--)
        {
            pax = kh1 * cv;
        }
        break;
}
IF (s)
{
    IF (jv)
    {
        IF (x)
        {
            j = za - ys;
        }
    }
}
zd = xwp / jmr / bj;

```

Answers

- A. 8 for statement coverage and 4 for decision coverage
- B. 3 for statement coverage and 4 for decision coverage
- C. 7 for statement coverage and 3 for decision coverage
- D. 4 for statement coverage and 6 for decision coverage
- E. 8 for statement coverage and 3 for decision coverage

Exercise 598

How many test cases are needed for statement and decision coverage of the following code?

```

ryk = 8;
DO
{
    ufy = 10;
    DO
    {
        SWITCH (sx)
        {
            CASE 0:
                nk = wjw / bmc - j;
                break;
            CASE 1:
                dvf = z + tp;
                break;
            CASE 2:
                awu = rba - bud;
                break;
            DEFAULT:
                ch = q * h / hwp;
                break;
        }
        ufy--;
    }
    WHILE (li || ufy > -1);
    ryk--;
}
WHILE (od || ryk > -3);
IF (y)
{
    FOR (lh = 5; lh < 13; lh++)
    {
        uz = 10;
        DO
        {
            wg = ki + kvk;
            uz--;
        }
        WHILE (sz || uz > 7);
    }
}
FOR (kdg = -1; kdg > -7; kdg--)
{
    cu = -9;

```

```

DO
{
    IF (t)
    {
        giz = n / mr;
    }
    cu++;
}
WHILE (tcf || cu < 3);
}

```

Answers

- A. 4 for statement coverage and 4 for decision coverage
- B. 2 for statement coverage and 4 for decision coverage
- C. 2 for statement coverage and 3 for decision coverage
- D. 6 for statement coverage and 5 for decision coverage
- E. 1 for statement coverage and 5 for decision coverage

Exercise 599

How many test cases are needed for statement and decision coverage of the following code?

```

dwd = -8;
WHILE (o || dwd < 7)
{
    SWITCH (11)
    {
        CASE 0:
            SWITCH (g)
            {
                CASE 0:
                    a = fz + d + ul;
                    break;
                CASE 1:
                    z = k / hnn / 1;
                    break;
                DEFAULT:
                    break;
            }
            break;
        CASE 1:
            FOR (uts = -9; uts > -14; uts--)
            {
                xeg = ci + xdl + p;
            }
            break;
    }
}

```

```

CASE 2:
    ed = 3;
    DO
    {
        ksl = u / som;
        ed++;
    }
    WHILE (pu || ed < 9);
    break;
DEFAULT:
    FOR (v = -1; v > -12; v--)
    {
        wz = b - crb * y;
    }
    break;
}
dwd++;
}
h = -1;
DO
{
    FOR (r = -6; r > -8; r--)
    {
        jqt = -4;
        DO
        {
            qsr = np * xg * qt;
            jqt++;
        }
        WHILE (he || jqt < 3);
    }
    h++;
}
WHILE (jwh || h < 10);
aa = aae - slp;

```

Answers

- A. 2 for statement coverage and 4 for decision coverage
- B. 7 for statement coverage and 3 for decision coverage
- C. 5 for statement coverage and 3 for decision coverage
- D. 5 for statement coverage and 6 for decision coverage
- E. 4 for statement coverage and 5 for decision coverage

Exercise 600

How many test cases are needed for statement and decision coverage of the following code?


```

FOR (uj = -2; uj < 9; uj++)
{
    g = 15;
    DO
    {
        IF (r)
        {
            nqg = a * dby * vnt;
        }
        ELSE
        {
            qc = u * re - qq;
        }
        g--;
    }
    WHILE (idi || g > 3);
}
ayt = ggt + kit + tx;
IF (qhm)
{
    hfe = 19;
    DO
    {
        SWITCH (obi)
        {
            CASE 0:
                p = ff / de;
                break;
            CASE 1:
                yyk = o / lan;
                break;
            CASE 2:
                haz = v / vq * ldb;
                break;
            DEFAULT:
                break;
        }
        hfe--;
    }
    WHILE (cq || hfe > 7);
}

```

Answers

- A. 6 for statement coverage and 3 for decision coverage
- B. 3 for statement coverage and 5 for decision coverage

- C. 4 for statement coverage and 4 for decision coverage
- D. 7 for statement coverage and 8 for decision coverage
- E. 2 for statement coverage and 4 for decision coverage

Chapter 6. Answers

Exercise 1 - A

Exercise 2 - E

Exercise 3 - C

Exercise 4 - B

Exercise 5 - A

Exercise 6 - A

Exercise 7 - D

Exercise 8 - C

Exercise 9 - A

Exercise 10 - E

Exercise 11 - C

Exercise 12 - C

Exercise 13 - D

Exercise 14 - C

Exercise 15 - A

Exercise 16 - B

Exercise 17 - E

Exercise 18 - E

Exercise 19 - E

Exercise 20 - A

Exercise 21 - C

Exercise 22 - C

Exercise 23 - B

Exercise 24 - A

Exercise 25 - C

Exercise 26 - E

Exercise 27 - B

Exercise 28 - D

Exercise 29 - B

Exercise 30 - B

Exercise 31 - C

Exercise 32 - B

Exercise 33 - A

Exercise 34 - C

Exercise 35 - D

Exercise 36 - B

Exercise 37 - C

Exercise 38 - A

Exercise 39 - A

Exercise 40 - A

Exercise 41 - A

Exercise 42 - C

Exercise 43 - C

Exercise 44 - A

Exercise 45 - B

Exercise 46 - A

Exercise 47 - A

Exercise 48 - A

Exercise 49 - C

Exercise 50 - A

Exercise 51 - E

Exercise 52 - C

Exercise 53 - B

Exercise 54 - C

Exercise 55 - D

Exercise 56 - B

Exercise 57 - D

Exercise 58 - C

Exercise 59 - D

Exercise 60 - B

Exercise 61 - B

Exercise 62 - C

Exercise 63 - C

Exercise 64 - C

Exercise 65 - E

Exercise 66 - E

Exercise 67 - E

Exercise 68 - C

Exercise 69 - E

Exercise 70 - C

Exercise 71 - C

Exercise 72 - D

Exercise 73 - B

Exercise 74 - A

Exercise 75 - A

Exercise 76 - E

Exercise 77 - C

Exercise 78 - C

Exercise 79 - E

Exercise 80 - C

Exercise 81 - C

Exercise 82 - E

Exercise 83 - A

Exercise 84 - B

Exercise 85 - E

Exercise 86 - B

Exercise 87 - D

Exercise 88 - C

Exercise 89 - A

Exercise 90 - A

Exercise 91 - D

Exercise 92 - C

Exercise 93 - C

Exercise 94 - D

Exercise 95 - C

Exercise 96 - D

Exercise 97 - D

Exercise 98 - C

Exercise 99 - C

Exercise 100 - D

Exercise 101 - E

Exercise 102 - E

Exercise 103 - D

Exercise 104 - C

Exercise 105 - A

Exercise 106 - A

Exercise 107 - D

Exercise 108 - B

Exercise 109 - B

Exercise 110 - E

Exercise 111 - C

Exercise 112 - C

Exercise 113 - E

Exercise 114 - D

Exercise 115 - C

Exercise 116 - D

Exercise 117 - A

Exercise 118 - B

Exercise 119 - E

Exercise 120 - B

Exercise 121 - C

Exercise 122 - E

Exercise 123 - C

Exercise 124 - D

Exercise 125 - E
Exercise 126 - E
Exercise 127 - E
Exercise 128 - E
Exercise 129 - E
Exercise 130 - E
Exercise 131 - C
Exercise 132 - D
Exercise 133 - C
Exercise 134 - E
Exercise 135 - C
Exercise 136 - D
Exercise 137 - B
Exercise 138 - D
Exercise 139 - E
Exercise 140 - B
Exercise 141 - D
Exercise 142 - B
Exercise 143 - D
Exercise 144 - B
Exercise 145 - C
Exercise 146 - E
Exercise 147 - C
Exercise 148 - D
Exercise 149 - B
Exercise 150 - A
Exercise 151 - D
Exercise 152 - B
Exercise 153 - C
Exercise 154 - B
Exercise 155 - A
Exercise 156 - E

Exercise 157 - B

Exercise 158 - E

Exercise 159 - D

Exercise 160 - D

Exercise 161 - D

Exercise 162 - E

Exercise 163 - D

Exercise 164 - B

Exercise 165 - E

Exercise 166 - D

Exercise 167 - A

Exercise 168 - C

Exercise 169 - C

Exercise 170 - B

Exercise 171 - A

Exercise 172 - E

Exercise 173 - B

Exercise 174 - D

Exercise 175 - E

Exercise 176 - D

Exercise 177 - D

Exercise 178 - B

Exercise 179 - E

Exercise 180 - D

Exercise 181 - B

Exercise 182 - B

Exercise 183 - D

Exercise 184 - D

Exercise 185 - A

Exercise 186 - A

Exercise 187 - A

Exercise 188 - B

Exercise 189 - A

Exercise 190 - D

Exercise 191 - D

Exercise 192 - C

Exercise 193 - B

Exercise 194 - A

Exercise 195 - E

Exercise 196 - C

Exercise 197 - A

Exercise 198 - B

Exercise 199 - A

Exercise 200 - B

Exercise 201 - D

Exercise 202 - A

Exercise 203 - E

Exercise 204 - C

Exercise 205 - D

Exercise 206 - A

Exercise 207 - E

Exercise 208 - E

Exercise 209 - A

Exercise 210 - E

Exercise 211 - C

Exercise 212 - A

Exercise 213 - C

Exercise 214 - D

Exercise 215 - E

Exercise 216 - B

Exercise 217 - B

Exercise 218 - D

Exercise 219 - D

Exercise 220 - D

Exercise 221 - C

Exercise 222 - C

Exercise 223 - B

Exercise 224 - A

Exercise 225 - B

Exercise 226 - A

Exercise 227 - E

Exercise 228 - C

Exercise 229 - A

Exercise 230 - E

Exercise 231 - E

Exercise 232 - E

Exercise 233 - E

Exercise 234 - A

Exercise 235 - A

Exercise 236 - C

Exercise 237 - C

Exercise 238 - B

Exercise 239 - D

Exercise 240 - E

Exercise 241 - C

Exercise 242 - D

Exercise 243 - A

Exercise 244 - B

Exercise 245 - A

Exercise 246 - D

Exercise 247 - D

Exercise 248 - D

Exercise 249 - A

Exercise 250 - D

Exercise 251 - A

Exercise 252 - B

Exercise 253 - A

Exercise 254 - A

Exercise 255 - D

Exercise 256 - B

Exercise 257 - D

Exercise 258 - B

Exercise 259 - D

Exercise 260 - A

Exercise 261 - B

Exercise 262 - D

Exercise 263 - B

Exercise 264 - C

Exercise 265 - A

Exercise 266 - E

Exercise 267 - A

Exercise 268 - E

Exercise 269 - A

Exercise 270 - A

Exercise 271 - E

Exercise 272 - B

Exercise 273 - A

Exercise 274 - D

Exercise 275 - B

Exercise 276 - C

Exercise 277 - A

Exercise 278 - C

Exercise 279 - B

Exercise 280 - B

Exercise 281 - B

Exercise 282 - B

Exercise 283 - C

Exercise 284 - C

Exercise 285 - D

Exercise 286 - A

Exercise 287 - B

Exercise 288 - E

Exercise 289 - E

Exercise 290 - C

Exercise 291 - A

Exercise 292 - D

Exercise 293 - A

Exercise 294 - A

Exercise 295 - C

Exercise 296 - C

Exercise 297 - D

Exercise 298 - C

Exercise 299 - B

Exercise 300 - D

Exercise 301 - C

Exercise 302 - B

Exercise 303 - B

Exercise 304 - A

Exercise 305 - A

Exercise 306 - B

Exercise 307 - E

Exercise 308 - C

Exercise 309 - D

Exercise 310 - C

Exercise 311 - E

Exercise 312 - D

Exercise 313 - E

Exercise 314 - A

Exercise 315 - C

Exercise 316 - A

Exercise 317 - D

Exercise 318 - B

Exercise 319 - B

Exercise 320 - B

Exercise 321 - D

Exercise 322 - B

Exercise 323 - A

Exercise 324 - C

Exercise 325 - C

Exercise 326 - A

Exercise 327 - D

Exercise 328 - C

Exercise 329 - B

Exercise 330 - C

Exercise 331 - D

Exercise 332 - C

Exercise 333 - A

Exercise 334 - B

Exercise 335 - A

Exercise 336 - A

Exercise 337 - A

Exercise 338 - E

Exercise 339 - B

Exercise 340 - B

Exercise 341 - D

Exercise 342 - E

Exercise 343 - A

Exercise 344 - D

Exercise 345 - C

Exercise 346 - B

Exercise 347 - C

Exercise 348 - A

Exercise 349 - E

Exercise 350 - C

Exercise 351 - A

Exercise 352 - A

Exercise 353 - B

Exercise 354 - E

Exercise 355 - E

Exercise 356 - E

Exercise 357 - C

Exercise 358 - C

Exercise 359 - B

Exercise 360 - B

Exercise 361 - C

Exercise 362 - C

Exercise 363 - D

Exercise 364 - A

Exercise 365 - B

Exercise 366 - A

Exercise 367 - B

Exercise 368 - B

Exercise 369 - D

Exercise 370 - E

Exercise 371 - D

Exercise 372 - E

Exercise 373 - D

Exercise 374 - E

Exercise 375 - D

Exercise 376 - B

Exercise 377 - C

Exercise 378 - C

Exercise 379 - C

Exercise 380 - A

Exercise 381 - C

Exercise 382 - D

Exercise 383 - E

Exercise 384 - E

Exercise 385 - A

Exercise 386 - A

Exercise 387 - E

Exercise 388 - C

Exercise 389 - A

Exercise 390 - A

Exercise 391 - E

Exercise 392 - E

Exercise 393 - C

Exercise 394 - B

Exercise 395 - E

Exercise 396 - B

Exercise 397 - B

Exercise 398 - E

Exercise 399 - D

Exercise 400 - A

Exercise 401 - D

Exercise 402 - D

Exercise 403 - D

Exercise 404 - D

Exercise 405 - C

Exercise 406 - A

Exercise 407 - B

Exercise 408 - E

Exercise 409 - E

Exercise 410 - C

Exercise 411 - B

Exercise 412 - C

Exercise 413 - E

Exercise 414 - D

Exercise 415 - D

Exercise 416 - E

Exercise 417 - B

Exercise 418 - C

Exercise 419 - B

Exercise 420 - C

Exercise 421 - D

Exercise 422 - C

Exercise 423 - C

Exercise 424 - E

Exercise 425 - B

Exercise 426 - B

Exercise 427 - C

Exercise 428 - E

Exercise 429 - E

Exercise 430 - A

Exercise 431 - B

Exercise 432 - A

Exercise 433 - B

Exercise 434 - D

Exercise 435 - E

Exercise 436 - A

Exercise 437 - C

Exercise 438 - B

Exercise 439 - D

Exercise 440 - A

Exercise 441 - E

Exercise 442 - E

Exercise 443 - A

Exercise 444 - A

Exercise 445 - B

Exercise 446 - A

Exercise 447 - C

Exercise 448 - C

Exercise 449 - B

Exercise 450 - D

Exercise 451 - C

Exercise 452 - E

Exercise 453 - C

Exercise 454 - E

Exercise 455 - A

Exercise 456 - A

Exercise 457 - C

Exercise 458 - E

Exercise 459 - E

Exercise 460 - E

Exercise 461 - B

Exercise 462 - C

Exercise 463 - E

Exercise 464 - D

Exercise 465 - A

Exercise 466 - D

Exercise 467 - A

Exercise 468 - C

Exercise 469 - D

Exercise 470 - A

Exercise 471 - C

Exercise 472 - E

Exercise 473 - A

Exercise 474 - B

Exercise 475 - D

Exercise 476 - C

Exercise 477 - C

Exercise 478 - C

Exercise 479 - A

Exercise 480 - A

Exercise 481 - D

Exercise 482 - D

Exercise 483 - A

Exercise 484 - B

Exercise 485 - B

Exercise 486 - B

Exercise 487 - B

Exercise 488 - B

Exercise 489 - E

Exercise 490 - E

Exercise 491 - D

Exercise 492 - C

Exercise 493 - D

Exercise 494 - D

Exercise 495 - D

Exercise 496 - C

Exercise 497 - D

Exercise 498 - E

Exercise 499 - D

Exercise 500 - B

Exercise 501 - D

Exercise 502 - D

Exercise 503 - C

Exercise 504 - A

Exercise 505 - A

Exercise 506 - A

Exercise 507 - D

Exercise 508 - B

Exercise 509 - E

Exercise 510 - B

Exercise 511 - C

Exercise 512 - C

Exercise 513 - C

Exercise 514 - D

Exercise 515 - B

Exercise 516 - A

Exercise 517 - B

Exercise 518 - A

Exercise 519 - E

Exercise 520 - D

Exercise 521 - C

Exercise 522 - B

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Exercise 524 - B

Exercise 525 - D

Exercise 526 - D

Exercise 527 - E

Exercise 528 - B

Exercise 529 - C

Exercise 530 - A

Exercise 531 - D

Exercise 532 - B

Exercise 533 - B

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Exercise 542 - D

Exercise 543 - A

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Exercise 545 - B

Exercise 546 - B

Exercise 547 - B

Exercise 548 - B

Exercise 549 - E

Exercise 550 - D

Exercise 551 - C

Exercise 552 - B

Exercise 553 - C

Exercise 554 - C

Exercise 555 - C

Exercise 556 - B

Exercise 557 - C

Exercise 558 - B

Exercise 559 - E

Exercise 560 - E

Exercise 561 - D

Exercise 562 - B

Exercise 563 - B

Exercise 564 - D

Exercise 565 - B

Exercise 566 - D

Exercise 567 - D

Exercise 568 - A

Exercise 569 - C

Exercise 570 - C

Exercise 571 - A

Exercise 572 - D

Exercise 573 - B

Exercise 574 - B

Exercise 575 - C

Exercise 576 - B

Exercise 577 - D

Exercise 578 - E

Exercise 579 - D

Exercise 580 - D

Exercise 581 - C

Exercise 582 - E

Exercise 583 - B

Exercise 584 - D

Exercise 585 - D

Exercise 586 - C

Exercise 587 - A

Exercise 588 - D

Exercise 589 - D

Exercise 590 - D

Exercise 591 - A

Exercise 592 - D

Exercise 593 - B

Exercise 594 - E

Exercise 595 - A

Exercise 596 - C

Exercise 597 - B

Exercise 598 - A

Exercise 599 - D

Exercise 600 - B