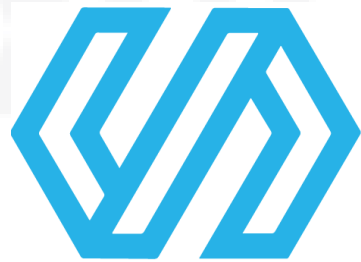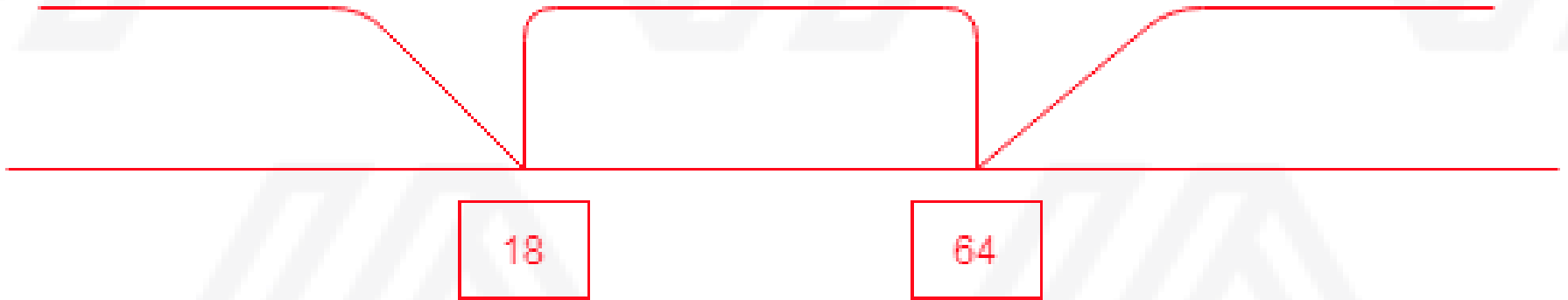# Testing Techniques Exercises

SKILLO

Question 1

To be eligible for a mortgage you must be between the ages of 18 and 64 (inclusive). The age input field will only accept two digits. What are the valid and invalid values for Equivalence Partitioning and Boundary Value Analysis?

SKILLO

Answer 1

BVA and Equivalence partitioning values:
17, 18, 35, 64, 65

Other values to test two digits functionality:
999, 09

SKILLO

Question 2

An input field on a mortgage calculator requires a value between 15,000 and 2,000,000. The field only allows numerical values to be entered and has a maximum length of 9 digits. What are the valid and invalid values for Equivalence Partitioning and Boundary Value Analysis?

SKILLO

Answer 2

BVA and Equivalence partitioning values:
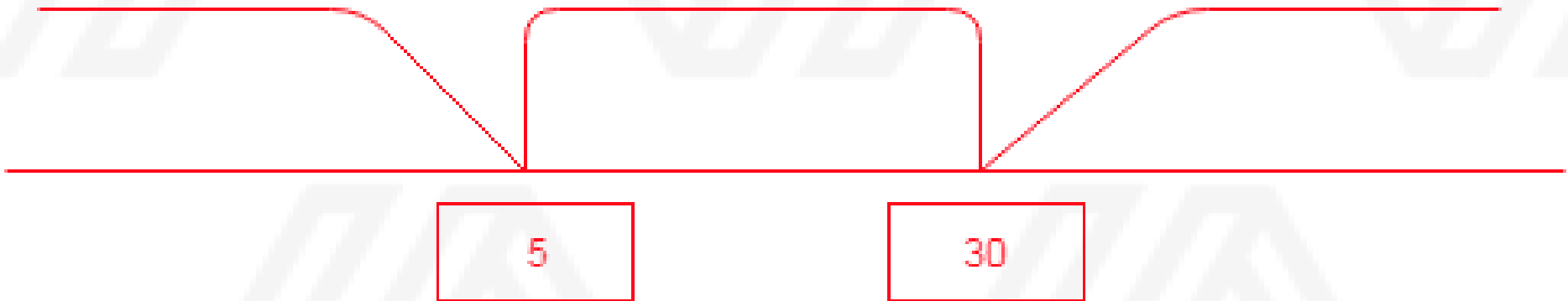14 999.99; 15 000;1 000 000; 2 000 000; 2 000 000.01

Other values to test number of digits functionality:
15 002.99999

SKILLO

Question 3

The term of a mortgage can be between 5 and 30 years, identify the valid values for Equivalence Partitioning and Boundary Value Analysis?

SKILLO

Answer 3

BVA and Equivalence partitioning values:
4, 5, 8, 30, 31

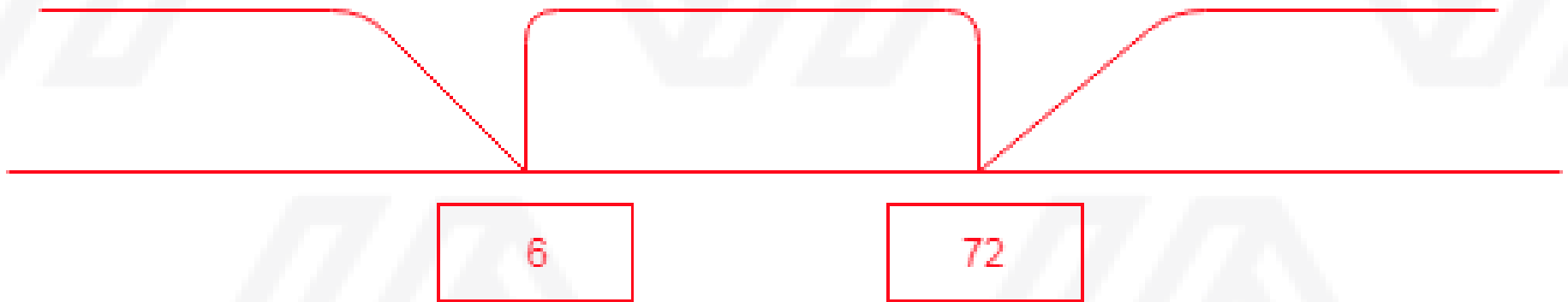Other values not related to the technique but important: -1

Question 4

The font formatting box in a word processing package allows the user to select the size of the font – ranging from 6 point to 72 point (in 0.5 steps).

What are the valid and invalid values for Equivalence Partitioning and Boundary Value Analysis?

SKILLO

Answer 4

BVA and Equivalence partitioning values:
5.5   6   50   72   72.5

Other values not related to the technique but important: -1

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Question 5

Personal loan can be between £1000 and £25000. For loans between £1,000 and £10,000 there is an interest rate of 8.5%, loans between £10,001 and £25,000 have an interest rate of 8%.

What are the valid and invalid values for Equivalence Partitioning and Boundary Value Analysis?

Answer 5

8.5 % 8.0 %

| 1000 | | 10000 | 10001 | | 25000 |
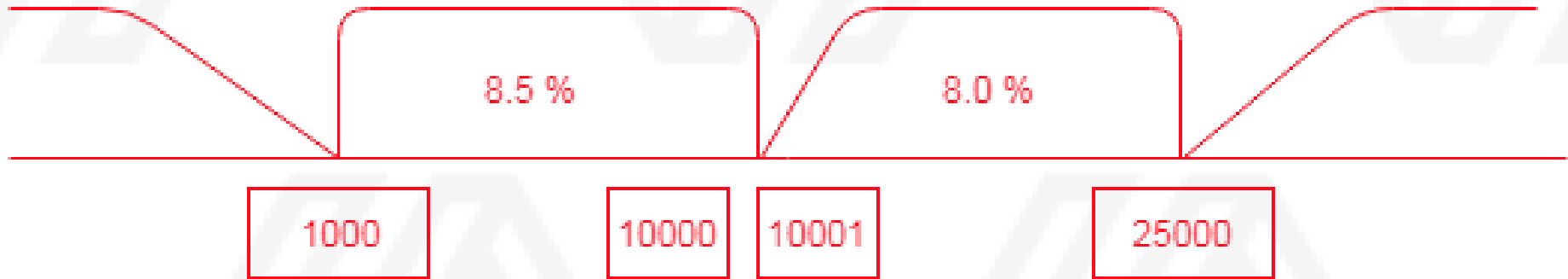
BVA and Equivalence partitioning values:
999.99; 1000; 4500; 10000; 10001; 15000; 25000; 25000.99;

Other values not related to the technique but important:
10000.99, -10000

SKILLO

Question 6

Given the following code, which one is true about the minimum number of test cases required for full statement and branch coverage?

Read P
Read Q
IF P+Q > 100 THEN
Print "Large"
ENDIF
If P > 50 THEN
Print "P Large"
ENDIF

a) 1 test for statement coverage, 3 for branch coverage
b) 1 test for statement coverage, 2 for branch coverage
c) 1 test for statement coverage, 1 for branch coverage
d) 2 tests for statement coverage, 3 for branch coverage
e) 2 tests for statement coverage, 2 for branch coverage

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Answer 6

a) 1 test for statement coverage, 3 for branch coverage

b) 1 test for statement coverage, 2 for branch coverage

c) 1 test for statement coverage, 1 for branch coverage

d) 2 tests for statement coverage, 3 for branch coverage

e) 2 tests for statement coverage, 2 for branch coverage

Question 7

Given the following code, which one is true about the minimum number of test cases required for full statement and branch coverage?

Switch PC on
Start "outlook"
IF outlook appears THEN
Send an email
Close outlook
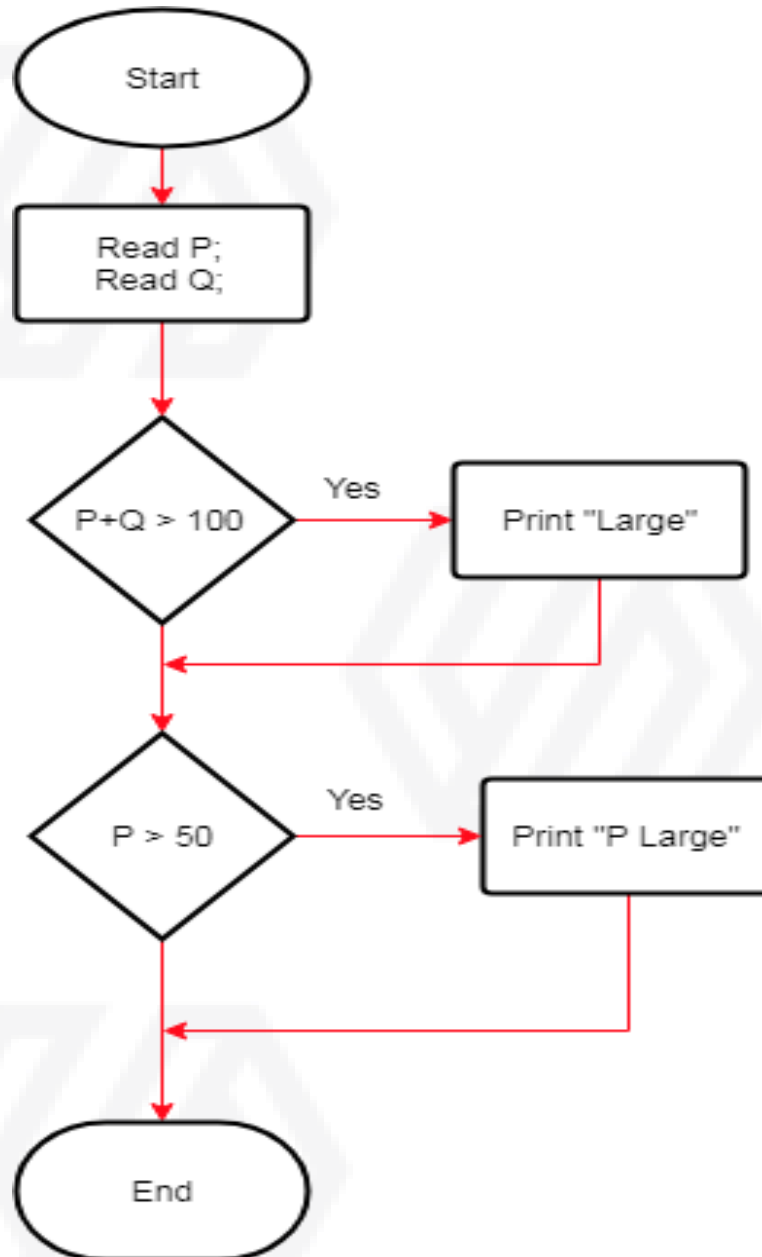
a) 1 test for statement coverage, 1 for branch coverage
b) 1 test for statement coverage, 2 for branch coverage
c) 1 test for statement coverage. 3 for branch coverage
d) 2 tests for statement coverage, 2 for branch coverage
e) 2 tests for statement coverage, 3 for branch coverage
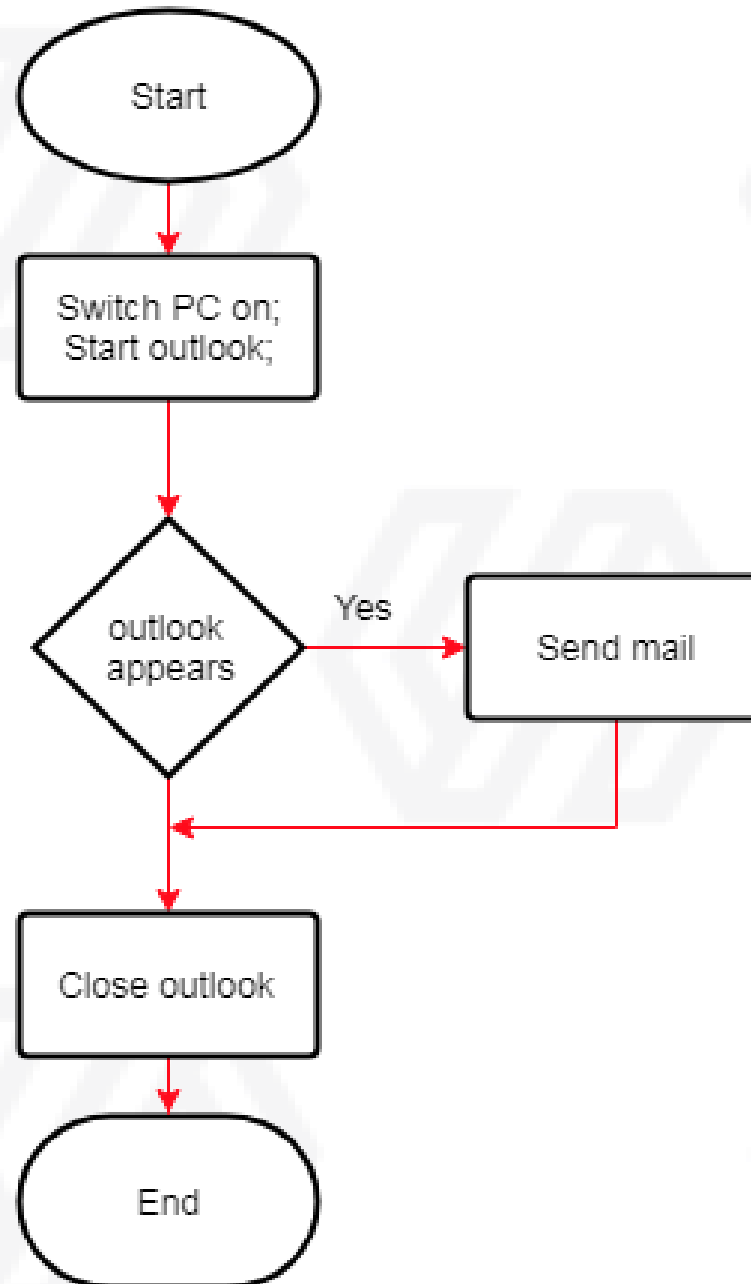
SKILLO

Answer 7

a) 1 test for statement coverage, 1 for branch coverage

b) 1 test for statement coverage, 2 for branch coverage

c) 1 test for statement coverage. 3 for branch coverage

d) 2 tests for statement coverage, 2 for branch coverage

e) 2 tests for statement coverage, 3 for branch coverage

Question 8

Given the following code, which is true?

```
IF A > B THEN
C = A – B
ELSE
C = A + B
ENDIF
Read D
IF C = D Then
Print "Error"
ENDIF
```

a) 1 test for statement coverage, 3 for branch coverage
b) 2 tests for statement coverage, 2 for branch coverage
c) 2 tests for statement coverage. 3 for branch coverage
d) 3 tests for statement coverage, 3 for branch coverage
e) 3 tests for statement coverage, 2 for branch coverage

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Answer 8

a) 1 test for statement coverage, 3 for branch coverage

b) 2 tests for statement coverage, 2 for branch coverage

c) 2 tests for statement coverage. 3 for branch coverage

d) 3 tests for statement coverage, 3 for branch coverage

e) 3 tests for statement coverage, 2 for branch coverage
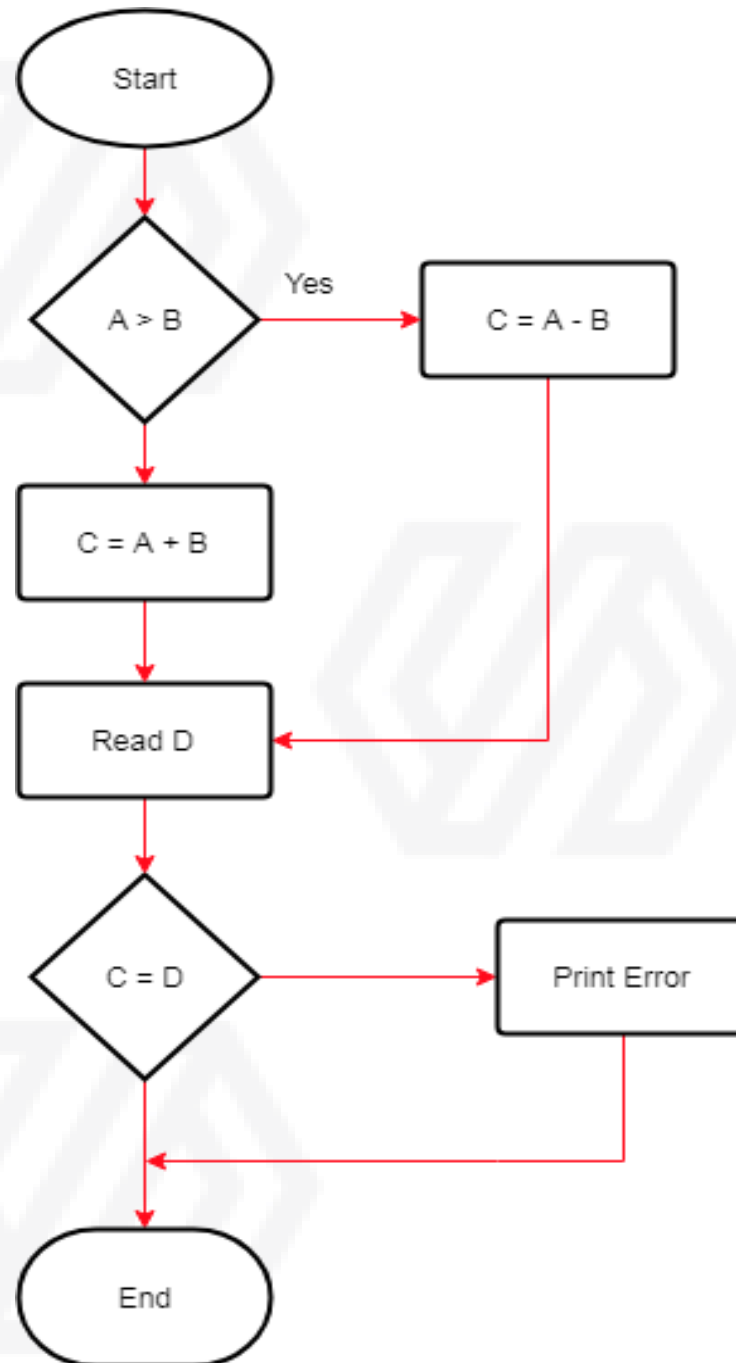
Question 9

Find the test scenarios using Decision table testing technique

CUSTOMER

If the customer is a new customer, offer 20% discount on next
order

If the customer is a repeat customer, offer free shipping

RISK LEVEL OF GOODS

If the risk level of goods is high, then:

If the customer is a new customer, check their credit record

If the customer is a repeat customer, then:

If the past orders total > £500, no further action

Otherwise check their credit record

SKILLO

Answer 9

	Customer type	New customer				Repeat customer			
		High risk		Low risk		High risk		Low risk	
Condition	Risk level of goods								
	Past orders total	>500	<500	>500	<500	>500	<500	>500	<500
Action	20% discount next order	X	X	X	X				
	Free shipping					X	X	X	X
	Check credit history	X	X				X		

Stub — Entry

Question 10

There is a login form with username, password and login button. When user provides valid credentials he is redirected to the homepage. The user has 3 attempts to enter valid credentials. If wrong credentials are provided on the 3-rd attempt the application is closed and cannot be started for 1 hour.

Based on the requirements above please draw a state transition table with the possible start/ end states and find out the number of the test cases derived from this table.

SKILLO

Answer 10

	Valid credentials	**Invalid credentials**
S1) Start – login form	-	-
S2) 1st attempt	S6)	S3)
S3) 2nd attempt	S6)	S4)
S4) 3rd attempt	S6)	S5)
S5) App closed for 1 hour	-	-
S6) Logged in	-	-

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