Code:

(1)
```
    int f;
    f = 2;
```
(2)
```
    int f;
    2 = f;
```

Question:
After the execution of which of the above parts of code will the variable f contain the value 2?

Choices:
a) (1)
b) (2)
c) (1) and (2)

Code:
```
int f = 7 + 3;
```

Question:
Give the value of the variable f after the above code is executed.

$f = 10$

1.3

Code:
```
int f = 2;
f = 3;
```

Question:
Give the value of the variable f after the above code is executed.

Choices:
a) f is 2;
b) f is [2,3];
c) f is 3;

1.4

Code:
```
int f = 5;
int a = f;
```

Question:
Give the value of the variables f and a after the above code is executed.

Choices:
a) a is 5; f is 5
b) a is 5; f is 0;
c) a is 'f'; f is 5;

1.5

Code:
```
String f = "Hello World!";
f = "";
```

Question:
After the above code was executed, what is the value of f?

f = " "

1.6

Code:
```
int a;
int b;
a = 3;
b = a;
a = 4;
```

Question:
After the above code was executed, what are the values of a and b?

a = 4
b = 3

Code:

```
int width = 0;
int height = 0;
int area = width * height;
width = 4;
height = 4;
System.out.print(area);
```

Question:
After the above code is executed, what is shown in the console?

0

Code:

```
int a = 0;
int b;
int c = 10 + 5;
int d = 23;
int e = 4;
b = c;
c = a;
a = b;
e = c + 3;
d = c;
c = d;
```

Question:
After the above code was executed, what are the values of a, b, c, d and e?

$a = 15$
$b = 15$
$c = 0$
$d = 0$
$e = 3$

1.10

```
int a = 3;
int b = 4;
int c = 5;
int d;
d = a; 3
a = b; 4
b = c; 5
c = d; 3
```

Describe the purpose of this code.

4
5
3
3

② CODE TRACE

Assume that a program contains the following declarations.

2.1

int i = 5, j = 2;

What will be printed by each statement?

System.out.println(i + j + 2); =9

System.out.println(i + " + " + j + 2); =5 +22

System.out.println(i * j + 2); =12

System.out.println("i * j " + 2); =i+ʊ2

Assume that a program contains the following declarations.

2.2

int i = 0, j = 3;

find the value of each variable after the given statements have been executed. Assume that i and j are re-intilaized to their original values after each statement

i = ++j + j; =8

i = ++j*2 + ++j*3; =28

j /= ++i; =0

i *= ++j + 2; =87

- Which of the statements below produces a compilation error. And how would you fix it?

```
char c = 'A';
c++;
c = c + 1;
    (char) (c+1);
```

- **Write a JAVA expression for each of the**

$$A = \pi r^2$$

double A= Math.PI * Math.Pow (r, 2);

_____

Write a program that converts a temperature from Celsius to Fahrenheit. It should (1) prompt the user for input, (2) read a double value from the keyboard, (3) calculate the result, and (4) format the output to one decimal place. When it's finished, it should work like this:

```
Enter a temperature in Celsius: 24
24.0 C = 75.2 F
```

Here is the formula to do the conversion:

$$F = C \times \frac{9}{5} + 32$$

f = C*9/5+32

```java
import java.util.Scanner;

Public class Fahrenheit {

    Public static void main (String[] args) {
        Scanner input= new Scanner (System.in);
        double C;
        System.out.Print ("Enter a temperature in celsius:");
        C= input.nexInt ();
        double F= C*9/5+32;
        System.out.Print (C+ "C = ");
        System.out.Print (F+ " F ");

    }
}
```