44-542 Object Oriented Programming

Exam 1 Part 2 A (60 pts total)

1. (8 pts) Find the output of the code below.

int n;

OUTPUT

17

4

2

16

int j = 9;

int k = 4;

int m = 2;

n = j + k \* m;

System.out.println(n);

n = j / k + m;

System.out.println(n);

n = j % k \* m;

System.out.println(n);

n = j % 3 + k \* 4 - m / 3;

System.out.println(n);

2. (8 pts) Find the output of the code below.

OUTPUT

false

true

true

false

boolean b;

b = 3 > 6 && 7 > 4;

System.out.println(b);

b = 4 > 6 || 10 < 2 \* 6;

System.out.println(b);

b = 7 >= 3 + 4 || 6 < 4 && 2 < 5;

System.out.println(b);

b = !(5 <= 4 || 6 != 5 && 10 >= 4);

System.out.println(b);

3. (8 pts) Find the output of the code below.

int f = 2;

OUTPUT

5

8

23

38

while (f < 30)

{

f = f + 3;

if (f > 10)

{

f = f + 12;

}

System.out.println(f);

}

4. (8 pts) Find the output of the code below.

int x = 10;

OUTPUT

10

3

1

15

15

20

20

1

int y = 5;

while (x < 18)

{

System.out.println(x);

while (y > 2)

{

y -= 2;

System.out.println(y);

}

x += 5;

System.out.println(x);

}

System.out.println(x);

System.out.println(y);

5. (8 pts) Find the output of the code below.

OUTPUT

bye

bye

hello

for (int d = 2; d < 10; d = d + 3)

{

if (d > 5)

{

System.out.println("hello");

}

else

{

System.out.println("bye");

}

}

6. (10 pts) Find the output of the code below.

String str = "I really hope that it gets warm soon";

System.out.println(str.length());

System.out.println(str.substring(4, 12));

System.out.println(str.substring(14));

System.out.println(str.charAt(3));

System.out.println(str.substring(str.indexOf('a'),

str.lastIndexOf('e')));

OUTPUT

36

ally hop

that it gets warm soon

e

ally hope that it g

7. (5 pts) Find the output of the code below.

OUTPUT

6

12

20

28

36

int[] t = new int[10];

for (int i = 0; i < t.length; i++)

{

t[i] = 2 \* i;

}

System.out.println(t[3]);

for (int row = 2; row <= 8; row += 2)

{

System.out.println(2 \* t[row + 1]);

}

8. (5 pts) Find the output of the code below.

OUTPUT

0

2

4

int[][] mat = new int[3][3];

for (int r = 0; r < mat.length; r++)

{

for (int c = 0; c < mat[r].length; ++c)

{

mat[r][c] = r + c;

}

}

for (int w = 0; w < mat.length; w++)

{

System.out.println(mat[w][w]);

}