Textbook Chapter 2, pages 87 through 97 Questions

1. Solve the following:

a. 52 / 5 + 15 / 2 + 53 % 10 + 1 / 2 20

b. 2.5 \* 2 + 8 / 5 + 10 / 3 9.00

1. For loops can be placed either within a method or outside a method, but still within a class.

True \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. By convention, what are the variable names used for control variables? i, j, k
2. Is the updating of the control variable performed before or after the execution of the controlled statements within the ‘for’ loop? after
3. How many times will the statement, within the following for loop body, be executed?3

for(int i = 4; i>=0; i=i-2) {

System.out.println(i);

}

1. Trace the following for loop code and complete the associated table.

for(int i = 1; i<10; i=i\*2) {

System.out.println(i\*2);

}

|  |  |  |
| --- | --- | --- |
| Loop Count / Step | Value of control variable ‘i’ | Printed output |
| 1 | 1 | 2 |
| 2 | 2 | 4 |
| 3 | 4 | 8 |
| 4 | 8 | 16 |
| 5 | 16 | none |

1. What is the output of the following oddStuff method? 4 2

public static void oddStuff() {

int number = 4;

for (int count = 1; count <= number; count++){

System.out.print(number + “ “);

number = number / 2;

}

}

1. In a nested ‘for’ loop structure it is easier to read from the inside out.
2. Revise the following nested ‘for’ loop code to show proper indentation.

for(int i = 1; i <= 5; i++) {

for(int j = 1; j<=3; j++) {

System.out.print(i\*j + “ “);

}

System.out.println();

}

1. How many times is the statement System.out.println(i\*j + “ “); in Question 9 executed? 15
2. What will be the output from executing the following code?

for(int i = 0; i < 4; i++) {

for(int j = 0; j <=3; j++) {

System.out.print(“+”);

}

System.out.println();

}

Write your answer below:

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