

Name: _____ Covers Chapters 1-3 50 mins	CSCI 1301 Introduction to Programming Armstrong Atlantic State University Instructor: Y. Daniel Liang
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Solution:

Part I:

0
8.0
6
false
16
9
43
943 is odd
0

Part II:

1.

```
import java.util.Scanner;

public class P1 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.print("Enter the exchange rate from dollars to RMB: ");
        double rate = input.nextDouble();

        System.out.print("Enter 0 to convert dollars to RMB and 1 vice versa: ");
        int conversionType = input.nextInt();

        if (conversionType == 0) {
            System.out.print("Enter the dollar amount: ");
            double dollars = input.nextDouble();
            double RMB = dollars * rate;
            System.out.println("$" + dollars + " is " + RMB + " Yuan");
        }
        else if (conversionType == 1) {
            System.out.print("Enter the RMB amount: ");
            double RMB = input.nextDouble();
            double dollars = RMB / rate;
            System.out.println(RMB + " Yuan" + " is " + "$" + dollars);
        }
        else {
            System.out.println("Incorrect input");
        }
    }
}
```

2.

```
import java.util.Scanner;

public class Test {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter an integer: ");
        int number = input.nextInt();

        if (number % 5 == 0)
            System.out.print("HiFive");
    }
}
```

```

    if (number % 2 == 0 || number % 3 == 0)
        System.out.println(" Georgia");
    }
}

```

Part III:

1. The expression $(\text{int})(76.0252175 * 100) / 100$ evaluates to _____.

- a. 76
- b. 76.0252175
- c. 76.03
- d. 76.02

Key:a

#

2. What is y after the following switch statement?

```

int x = 0;
int y = 0;
switch (x + 1) {
    case 0: y = 0;
    case 1: y = 1;
    default: y = -1
}

```

- a. 2
- b. 1
- c. 0
- d. -1

Key:d

#

3. Assume x is 0. What is the output of the following statement?

```

if (x > 0)
    System.out.print("x is greater than 0");
else if (x < 0)
    System.out.print("x is less than 0");
else
    System.out.print("x equals 0");

```

- a. x is less than 0
- b. x is greater than 0
- c. x equals 0
- d. None

Key:c

#

4. Analyze the following code:

Code 1:

```
boolean even;
```

```
if (number % 2 == 0)
```

```
    even = true;
```

```
else
```

```
    even = false;
```

Code 2:

```
boolean even = (number % 2 == 0);
```

- a. Code 2 has syntax errors.
- b. Code 1 has syntax errors.
- c. Both Code 1 and Code 2 have syntax errors.
- d. Both Code 1 and Code 2 are correct, but Code 2 is better.

Key:d

#

5. What is the printout of the following switch statement?

```
char ch = 'a';
```

```
switch (ch) {
```

```
    case 'a':
```

```
    case 'A':
```

```
        System.out.print(ch); break;
```

```
    case 'b':
```

```
    case 'B':
```

```
        System.out.print(ch); break;
```

```
    case 'c':
```

```
    case 'C':
```

```
        System.out.print(ch); break;
```

```
    case 'd':
```

```
    case 'D':
```

```
        System.out.print(ch);
```

```
}
```

- a. ab
- b. a

- c. aa
- d. abc
- e. abcd

Key:b

#

6. What is x after evaluating

`x = (2 > 3) ? 2 : 3;`

- a. 5
- b. 2
- c. 3
- d. 4

Key:c

#

7. Analyze the following code.

```
int x = 0;
if (x > 0);
{
    System.out.println("x");
}
```

- a. The value of variable x is always printed.
- b. The symbol x is always printed twice.
- c. The symbol x is always printed.
- d. Nothing is printed because `x > 0` is false.

Key:c

#

8. To declare a constant `MAX_LENGTH` inside a method with value 99.98, you write

- a. `final double MAX_LENGTH = 99.98;`
- b. `double MAX_LENGTH = 99.98;`
- c. `final MAX_LENGTH = 99.98;`
- d. `final float MAX_LENGTH = 99.98;`

Key:a

#

9. Which of the following is a constant, according to Java naming conventions?

- a. read
- b. MAX_VALUE
- c. ReadInt
- d. Test

Key:b

#

10. What is y after the following switch statement is executed?

```
x = 3;
switch (x + 3) {
    case 6: y = 0;
    case 7: y = 1;
    default: y += 1;
}
```

- a. 1
- b. 4
- c. 3
- d. 2
- e. 0

Key:d

#

11. Which of the following code displays the area of a circle if the radius is positive.

- a. `if (radius <= 0) System.out.println(radius * radius * 3.14159);`
- b. `if (radius != 0) System.out.println(radius * radius * 3.14159);`
- c. `if (radius >= 0) System.out.println(radius * radius * 3.14159);`
- d. `if (radius > 0) System.out.println(radius * radius * 3.14159);`

Key:d