

Use the following class definition to answer questions 1-4.

```
public static void main(String[] args)
{
    (1) System.out.print("Hello ");
    (2) System.out.print("Buenos Dias ");
    (3) System.out.println("Bonjour");
    (4) System.out.println("How do you greet another?");
}
```

1. What will print after line 2 executes?

- (a) "Hello" "Buenos Dias"
- (b) HelloBuenos Dias
- (c) Hello Buenos Dias
- (d) Hello on one line and Buenos Dias on another

2. What will print after line 3 executes?

- (a) HelloBuenos DiasBonjour
- (b) Hello Buenos Dias Bonjour
- (c) HelloBuenos Dias
Bonjour
- (d) Hello
Buenos Dias
Bonjour

3. How many lines will print in this program?

- (a) 1
- (b) 2
- (c) 3
- (d) 4

_____ 4. If you want to output the text here 'there' and "everywhere" including the quotation marks, which of the following could do that?

- a) System.out.println("here 'there' and "everywhere"");
- b) System.out.println("here \'there\' and \'everywhere\'");
- c) System.out.println("here 'there' and \'everywhere\'");
- d) System.out.println(here there and everywhere);

_____ 5. What value will z have if we execute the following assignment statement?

- ```
double z = 10 / 4
```
- a) z will equal 2
  - b) z will equal 2.0
  - c) z will equal 2.5
  - d) z will equal 2.2

- \_\_\_\_\_ . 6. What value will z have if we execute the following assignment statement?  
int z = 50 / 10.00;  
a) 5  
b) 5.0  
c) 50  
d) 10  
e) none of the above, a run-time error arises because z is an int and 50 / 10.00 is not
- \_\_\_\_\_ 7. What will be the result of the following assignment statement?  
Assume b = 6 and c = -10.  
int a = b \* (-c + 2) / 2;  
a) 24  
b) -36  
c) -24  
d) 36  
e) 0
- \_\_\_\_\_ 8. Assume that x, y and z are all ints equal to 50, 20 and 6 respectively. What is the result of x / y / z?  
a) 0  
b) 12  
c) 16  
d) A syntax error as this is syntactically invalid  
e) A run-time error because this is a division by 0
- \_\_\_\_\_ 9. What is the output with the statement System.out.println(x+y); if x and y are int values where x=10 and y=5?  
a) 15  
b) 105  
c) 10 5  
d) x+y  
e) An error since neither x nor y is a String
- \_\_\_\_\_ 10. What is the output with the statement System.out.println(""+x+y); if x and y are int values where x=10 and y=5?  
a) 15  
b) 105  
c) 10 5  
d) x+y  
e) An error since neither x nor y is a String
- \_\_\_\_\_ 11. Of the following types, which one cannot store a numeric value?  
a) int  
b) double  
c) char  
d) all of these can store a numeric value  
e) none of these can store a numeric value

- \_\_\_\_\_ 12. The expression  $1/5$  is equal to which of the following?
- a) 0.2
  - b)  $1 / (\text{int}) 5.0$
  - c)  $(\text{int}) 1.0 / 5.0$
  - d)  $(\text{double}) 2 / 10$
  - e)  $1.0 / 5.0$
- \_\_\_\_\_ 13. Which character below is not allowed as an identifier?
- a) \$
  - b) \_
  - c) 0 (zero)
  - d) q
  - e) !
- \_\_\_\_\_ 14. Which of the following is a legal Java identifier?
- a) knightsAreNumber1
  - b) 1isOurNumber
  - c) knights/number/one
  - d) 1\_are\_the\_knights
  - e) 1centennialknights

15. `System.out.print("\\"/\\/\"");`

What is the output

- A.** `"/\"`      **B.** `"/\"`      **C.** `"/\"`      **D.** `"/\"/\"`

16. What is the result of the following expression?

$$23 / 5 - 10 \% (5 - 1) * 3 + 2 / 6$$

**Use these variables to answer the questions below**

```
int i = 12;
int x;
double d= 10.0;
double e = 11.7;
double y;
```

17)  $x = (\text{int})e$ ;      What is the exact value of x?

18)  $y = i$ ;      What is the exact value of y?

19)  $x = i/8$ ;      What is the exact value of x?

20)  $x = d/4$ ;      What is the exact value of y?

21)  $y = i/8$ ;      What is the exact value of y?

22.     $6 / 3 * 2$

23.     $4 + 3 * 5$

24.     $7 - 2 * 5 \% 3$

25.     $2 + 3 * 2 + 15 / 5$

26.     $12 - 6 / 3 \% 3$

27 `System.out.print( Math.sqrt(Math.pow(5,2)) );`

28 `System.out.print( Math.pow(3,3) );`

30 `System.out.print( Math.sqrt(36) );`

31 `System.out.print( Math.abs(-213.00) );`

32 `System.out.print( Math.abs(-213) );`

Create Random numbers using the Math.random method. Store it in an int variable.

33. Create random numbers between 10 and 50 inclusively.

34. Create random numbers between 2 and 25 exclusively

35. Create random numbers between 1 and 100 inclusively

1. \_\_\_\_\_ is a number system that uses the digits 0 through 7 and powers of 8.
2. \_\_\_\_\_ is a number system that uses the digits 0-9, A-F and powers of 16.
3. \_\_\_\_\_ is a number system that uses the digits 0-9 and powers of 10.
4. Write  $11_{10}$  in octal. I would convert 11 base 10 to binary then octal.
5. Write  $14_{10}$  in hexadecimal. I would convert 14 base 10 to binary then hex.
6. Convert  $21_8$  to decimal. Use the formula to multiply each place by the value of that place.
7. Convert  $1100\ 1111_2$  to decimal.
8. Convert  $1101\ 1100_2$  to octal
9. Convert  $1010\ 1010_2$  to hexadecimal.
10. Convert  $24_8$  to binary.

|                                                                    |                                                                                                            |
|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>QUESTION 31</b><br>(a) brace (b) semicolon (c) comma (d) period | Java statements in end a _____                                                                             |
| <b>QUESTION 32</b><br>(a) logical (b) syntax (c) run time          | The compiler will not compile. You have made a _____ error.                                                |
| <b>QUESTION 33</b><br>(a) logical (b) syntax (c) run time          | Trying to divide by zero will produce a _____ error.                                                       |
| <b>QUESTION 34</b><br>(a) logical (b) syntax (c) run time          | The output for our program produced 2.0 but it should have produced 2.6. What type of error would this be? |

Declare and initialize the variables below.

35. A person's name \_\_\_\_\_

36. The cost of a movie \_\_\_\_\_

37. The age of a person \_\_\_\_\_

