

1. Which one of the following is NOT a correct arithmetic expression?

- a) alpha
- b) (alpha / momentum) - 12.4
- c) alpha (/ momentum - 12.4)
- d) ((alpha / momentum) - 12.4)

2. What does the following program output?

```
int totalCost = 6;  
int items = 12;  
System.out.println("cost per item: " + totalCost/items );
```

- a) cost per item: .5
- b) cost per item: 0
- c) cost per item: 1
- d) cost per item: +6/12

3. Which of the following statements contains an error that will be caught by the compiler?

- a) int x, y = 7 z = -1;
- b) z = x % y;
- c) final int nums = 13;
- d) char letter = 'D';
- e) String word = "Hello";

4. What is the output of the following statement? (a “b” denotes a blank space)

```
System.out.println(EasyFormat.format(5.37, 5, 1));
```

- a) 5.4
- b) b5.3
- c) b5.4
- d) bb5.3
- e) bb5.4

Use the following variable declarations for #5:

```
int a=1, b=2, c=3, d;  
double x, y;
```

5. What is the value of the variable *d* after the following assignment statement?

```
d = 2 - (b + c) % c * 8 / (a + 3);
```

- a) 0
- b) 1
- c) -1
- d) 2
- e) -2

For Questions 6-9, assume the following: `int a=1 ,b=2, c=3, d; double x, y;`

6. Which of the following evaluate to the same result?

- I. `d = 2 + 4;`
- II. `d = (int) (2.3 + 4.6);`
- III. `d = (int) (2.5 + 4.6);`

a) I and II only b) I and III only c) II and III only d) I, II and III e) None

7. Which of the following expressions evaluates to 3?

a) `c % b` b) `6 % c + b` c) `c / b + b` d) `a + c` e) `b + c`

8. What is the numerical value of the following expression?

```
Math.abs(Math.sqrt(16) - Math.pow(3,2))
```

a) 5 b) -5 c) 4 d) -4 e) 0

9. Which of the following assignments does NOT leave x with a value of 0.7?

- a) `x = 7.0 / 10;`
- b) `x = (double)7 / 10;`
- c) `x = (double) (7 / 10);`
- d) `x = 7 / 10.0;`
- e) `x = 7.0 / 10.0;`

The following questions refer to the Student class as defined on the accompanying paper.

10. Which of the following shows a correct use of the Student class constructor?

- I. `Student s = new Student(32, 67, 81);`
- II. `Student s = new Student(32, 67, 81, "Elaine");`
- III. `Student s = new Student("Sara", 32, 67, 81);`

a) I only b) II only c) III only d) I and II e) II and III

11. Which of the following contains a syntax error using the Student class? Assume the following declaration:

```
Student s = new Student();
```

- a) `double avg = s.getAverage(2);`
- b) `s.setScore(3, 85);`
- c) `s.setName("Amy");`
- d) `System.out.println(s);`
- e) `int score = s.getScore(1);`