Name: _____ **Class:** _____ **Date:** _____ **ID: A**

Chapter 1 Test

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. **What is output by the code below?**

```
System.out.println( Math.sqrt(121) );
```

a. 12
b. 10
c. 10.0
d. 11.0
e. 11

____ 2. **What is output by the code below?**

```
System.out.println( Math.floor(9.1) );
```

a. 6.0
b. 10.0
c. 10
d. 9.0
e. 9

____ 3. **What is output by the code below?**

```
System.out.println( Math.ceil(7.2) );
```

a. 7
b. 7.0
c. 8.0
d. 9.0
e. 8

____ 4. **What is output by the code below?**

```
System.out.println( Math.pow(6,2) );
```

a. 30.0
b. 25.0
c. 12.0
d. 36.0
e. 27.0

____ 5. **What is output by the code below?**

```
System.out.println( Math.round(11.6) );
```

a. 13
b. 11
c. 8
d. 9
e. 12

____ 6. **What is output by the code below?**

```
int x = 9,
y = 11;
int z = x + y;
double a = z;
System.out.print(a);
```

a. 8
b. 9
c. 17
d. 17.0
e. 20.0

____ 7. **What is output by the code below?**

```
System.out.printf("%.3f",9.3317);
```

a. 9.331
b. 9.332
c. 9.33
d. 9.3
e. 9.4

____ 8. **What is output by the code below?**

```
System.out.println( (int)Math.pow( Math.sqrt(40),2) );
```

a. 40.5
b. 80
c. 40
d. 36.0
e. 27

____ 9. **What is output by the code below?**

```
System.out.println( Math.round(5.0 /2) );
```

a. 2
b. 3
c. 3.0
d. 2.0
e. 27

____ 10. **What is output by the code below?**

```
System.out.println( Math.pow( Math.sqrt(16),2) );
```

a. 9.0
b. 16.0
c. 32.0
d. 64.0
e. 27

____ 11. **What is output by the code below?**

```
System.out.print(4 % 3);
```

a. .5
b. 1
c. 2
d. 0
e. 3

____ 12. **What is output by the code below?**

```
System.out.print( (double)2 / 2 );
```

a. 1
b. 1.0
c. 2
d. 0
e. 3

____ 13. **What is output by the code below?**

```
System.out.print(12.7 % 3);
```

a. .7
b. .3
c. 3
d. 0
e. 12

____ 14. **What is output by the code below?**

```
System.out.print(3.0 / 6 + 3 * 3.5);
```

a. 11.0
b. 10.5
c. .18
d. 12.25
e. 1.17

____ 15. **What is output by the code below?**

```
System.out.println( Math.max(Math.min(16,18),17) );
```

a. 0
b. 16
c. 17
d. 18
e. 19

____ 16. **What is output by the code below?**

```
System.out.println( Math.min(Math.min(16,18),17) );
```

a. 0
b. 16
c. 17
d. 18
e. 19

____ 17. **Consider the method go below that should return the product of the parameters a and b.**

```
public double go( double a, double b  )
{
   /*  blank  */
}
```

Which of the following could correctly fill `/* blank */` ?

I. `return a + b;`

II. `return a - b;`

III. `return a * b;`

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

____ 18. **Consider the method go below that should return twice the value of a minus the value of b.**

```
public double go( double a, double b  )
{
   /*  blank  */
}
```

Which of the following could correctly fill /* blank */ ?

I. `return a * a - b;`

II. `return 2 * a - b;`

III. `return 2 * ( a - b );`

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

____ 19. **Consider the method go below that should return the perimeter of rectangle. The formula for perimeter of rectangle is :: 2 x length + 2 x width**

```
public double go( int len, int wid )
{
   /*  blank  */
}
```

Which of the following could correctly fill /* blank */ ?

I. `return 2 * len * wid;`

II. `return 2 * (len + wid);`

III. `return 2 * len + 2 * wid;`

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

____ 20. **Consider the class and client code below.**

```
public class Aplus
{
  public double go( double a )
  {
    return a * 3;
  }

  public double fun( double b )
  {
    return go( b ) + b;
  }
}

//client code in another class
Aplus x = new Aplus();
System.out.println( x.go(2) );
```

a. 9.0
b. 3.0
c. 6.0
d. 8.0
e. 12.0

____ 21. **Consider the class and client code below.**

```
public class Aplus
{
  public double go( double a )
  {
    return a * 3;
  }

  public double fun( double b )
  {
    return go( b ) + b;
  }
}

//client code in another class
Aplus x = new Aplus();
System.out.println( x.fun(2) );
```

a. 9.0
b. 3.0
c. 6.0
d. 8.0
e. 12.0

____ 22. **Consider the class and statements that follow.**

```
public class Money
{
   private double amount;

   public Money(double am)
   {
      amount = am;
   }

   public void addQuarters(int q)
   {
      amount += q * 0.25;
   }

   public void addDimes(int d)
   {
      amount += d * 0.1;
   }

   public double getAmount()
   {
      return amount;
   }
}
```

What is the output of the code below?

```
Money m = new Money(2.1);
m.addDimes(7);
m.addQuarters(7);
m.addDimes(2);
System.out.println(m.getAmount());
```

a. 2.1
b. 2.65
c. 5.05
d. 4.75
e. 18.1

____ 23. **When writing a method, you must always have an open and close what ?**

a. parenthesis
b. brace
c. bracket
d. A and B only
e. A, B, and C

____ 24. **How many methods does class CS contain?**

```
public class CS
{
   public void one()
   {
      System.out.print("one");
   }
}
```

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

____ 25. **What is output by the code below?**

```
public class CS
{
   public void one()
   {
      System.out.print("one");
   }
}
```

//code in the main of another class

```
CS test = new CS();
test.one();
```

a. one
b. oneone
c. oneoneone
d. oneoneoneone
e. oneoneoneoneone

____ 26. **What is output by the code below?**

```
public class CS
{
   public void one()
   {
     System.out.print("one");
   }
}
```

```
//code in the main of another class
CS test = new CS();
test.one();
test.one();
test.one();
test.one();
```

a. one
b. oneone
c. oneoneone
d. oneoneoneone
e. oneoneoneoneone

____ 27. **What is output by the code below?**

```
public class CS{
   public void one(){
     System.out.print("one");
   }
}
```

```
//code in the main of another class
CS test = new CS();
test.one();
test.one();
```

a. one
b. oneone
c. oneoneone
d. oneoneoneone
e. oneoneoneoneone

____ 28. **What is output by the code below?**

```
public class CS
{
   public void one()
   {
     System.out.print("one");
   }
}

//code in the main of another class
CS test = new CS();
test.one();
test.one();
test.one();
```

a. one
b. oneone
c. oneoneone
d. oneoneoneone
e. oneoneoneoneone

____ 29. **What is output by the code below?**

```
public class CS
{
   public void one()
   {
     System.out.print("one");
   }
}

//code in the main of another class
CS test = new CS();
test.one();
test.one();
test.one();
test.one();
test.one();
```

a. one
b. oneone
c. oneoneone
d. oneoneoneone
e. oneoneoneoneone

____ 30. **How many methods does class CS contain?**

```
public class CS
{
   public void one()
   {
     System.out.print("one");
   }

   public void two()
   {
     System.out.print("two");
   }
}
```

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

____ 31. **How many methods does class CS contain?**

```
public class CS
{
   public void one()
   {
     System.out.print("one");
   }

   public void two()
   {
     System.out.print("two");
   }

   public void go()
   {
     two();
     one();
   }
}
```

a. 1
b. 3
c. 2
d. 4
e. 5

____ 32. **What is output by the code below?**

```
public class CS
{
   public void one()
   {
     System.out.print("one");
   }

   public void two()
   {
     System.out.print("two");
   }
}
```

```
//code in the main of another class
CS test = new CS();
test.one();
test.two();
test.one();
```

a. one
b. onetwo
c. onetwoone
d. onetwoonetwo
e. onetwoonetwoone

____ 33. **What is output by the code below?**

```
public class CS
{
   public void one()
   {
     System.out.print("one");
   }

   public void two()
   {
     System.out.print("two");
   }
}
```

```
//code in the main of another class
CS test = new CS();
test.two();
test.one();
test.two();
test.one();
```

a. one
b. onetwo
c. twoonetwoone
d. onetwoonetwo
e. onetwoonetwoone

____ 34. **What is output by the code below?**

```
public class CS
{
   public void one()
   {
     System.out.print("one");
     two();
   }

   public void two()
   {
     System.out.print("two");
   }
}
```

//code in the main of another class
```
CS test = new CS();
test.one();
```

a. one
b. onetwo
c. onetwoone
d. onetwoonetwo
e. onetwooneoneone

____ 35. **What is output by the code below?**

```
public class CS
{
   public void one()
   {
     System.out.print("one");
   }

   public void two()
   {
     System.out.print("two");
     one();
   }
}
```

//code in the main of another class
```
CS test = new CS();
test.one();
test.two();
test.two();
```

a. one
b. onetwo
c. onetwoone
d. onetwoonetwo
e. onetwoonetwoone

____ 36. **What is output by the code below?**

```
public class CS
{
   public void one()
   {
     System.out.print("one");
   }

   public void two()
   {
     System.out.print("two");
     one();
   }
}
```

```
//code in the main of another class
CS test = new CS();
test.one();
test.two();
test.one();
```

a. onetwooneone
b. oneoneoneone
c. twotwotwotwo
d. onetwoonetwo
e. twooneoneone

____ 37. **How many methods does class Dog contain?**

```
public class Dog
{
   public void barkOnce()
   {
     System.out.print("woof");
   }

   public void barkTwice()
   {
     barkOnce();
     barkOnce();
   }
}
```

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

____ 38. **Consider the class and statements that follow.**

```
public class Dog
{
   public void barkOnce()
   {
     System.out.print("woof");
   }

   public void barkTwice()
   {
     barkOnce();
     barkOnce();
   }
}
```

Given the declaration below, which of the following are valid statements?
`Dog d = new Dog();`

I.
`d.barkOnce();`

II.
`d.barkTwice();`

III.
`System.out.println( d.barkTwice() );`

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

____ 39. **Consider the class and statements that follow.**

```
public class Dog
{
   private void barkOnce()
   {
     System.out.print("woof");
   }

   public void barkTwice()
   {
     barkOnce();
     barkOnce();
   }
}
```

Given the declaration below, which of the following are valid statements?
`Dog d = new Dog();`

I.
`d.barkOnce();`

II.
`d.barkTwice();`

III.
`System.out.println( d.barkTwice() );`

a. I only
b. II only
c. III only
d. I and II only
e. none of the these statements are valid

____ 40. **Consider the class and statements that follow.**

```
public class Dog
{
   private void barkOnce()
   {
     System.out.print("woof");
   }

   private void barkTwice()
   {
     barkOnce();
     barkOnce();
   }
}
```

Given the declaration below, which of the following are valid statements?
`Dog d = new Dog();`

I.
`d.barkOnce();`

II.
`d.barkTwice();`

III.
`System.out.println( d.barkTwice() );`

a. I only
b. II only
c. III only
d. I and II only
e. none of the these statements are valid