## Multiple Choice <br> Object Methods

1. Consider the following statement:

Blank is a computer science tool that involves using program features without knowledge of how the program features are implemented.

This statement explains
(A) inheritance.
(B) encapsulation.
(C) composition.
(D) information hiding.
(E) polymorphism.
02. An object is a
(A) single instance of a given data structure template.
(B) collection of primitive data types.
(C) user-defined data type.
(D) data structure template or blue print.
03. Examples of class methods are
(A) Math methods.
(B) Bank methods.
(C) Random and DecimalFormat methods.
(D) both B and C.
04. Examples of object methods are
(A) Math methods.
(B) Bank methods.
(C) Random and DecimalFormat methods
(D) both B and C.
05. A class method is called by using
(A) the method identifier only.
(B) the class identifier only.
(C) the class identifier, followed by a period and the method identifier.
(D) an object identifier, followed by a period and the method identifier.
06. An object method (or instance method) is called by using
(A) the method identifier only.
(B) the object identifier only.
(C) the class identifier, followed by a period and the method identifier.
(D) an object identifier, followed by a period and the method identifier.
07. The Java keyword new is used to construct
(A) objects only.
(B) classes only.
(C) objects and classes.
(D) neither objects nor classes.
08. By Java program writing convention, which of the following is true?
(A) Object identifiers start with a capital letter and class identifiers start with a lower-case letter.
(B) Object identifiers start with a lower-case letter and class identifiers start with a capital letter.
(C) Object identifiers start with a capital letter and class identifiers start with a capital letter.
(D) Object identifiers start with a lower-case letter and class identifiers start with a lower-case letter.
09. The methods in the Math class are
(A) class methods.
(B) object methods.
(C) expression methods.
(D) variable methods.
10. The methods in the Bank class are
(A) class methods.
(B) object methods.
(C) expression methods.
(D) variable methods.
11. The methods in the Random class are
(A) class methods.
(B) object methods.
(C) expression methods.
(D) variable methods.
12. The methods in the DecimalFormat class are
(A) class methods.
(B) object methods.
(C) expression methods.
(D) variable methods.

For questions 13-20 use the following Bank class information. It contains the headings of the methods in the Bank class, along with a description.

## public Bank()

// default constructor starts checking and savings account with zero dollars.
public Bank(double c, double s)
// constructor creates an object with c dollars in checking and s dollars in savings.
public double getChecking()
// returns the checking account balance
public double getSavings()
// returns the savings account balance
public double getCombined()
// returns the combined balance of the checking and savings account
public void changeChecking(double amount)
// alters the balance of the checking account by the amount parameter
public void changeSavings(double amount)
// alters the balance of the savings account by the amount parameter
public void closeChecking()
// alters the checking account balance to zero

## public void closeSavings()

// alters the savings account balance to zero
13. Access to methods of the Bank class requires
(A) using a statement, like Bank.getSavings();
(B) using a statement, like Bank.getSavings;
(C) the creation of one or more Bank objects.
(D) using the get method.
14. A class is $\qquad$ .
(A) a data type
(B) a variable
(C) a constant
(D) another name for an object
15. An object is $\qquad$ .
(A) a data type
(B) a variable
(C) a constant
(D) another name for a class
16. The new keyword must be used with
(A) every class method call.
(B) every object method call.
(C) the construction of each object.
(D) the construction of each class.
17. What is the output of the following program segment?

Bank tom;
tom = new Bank();
Bank sue;
sue $=$ new $\operatorname{Bank}$ ();
tom.changeChecking(1000);
sue.changeChecking(1500);
System.out.println("sue: " + sue.getSavings());
System.out.println("tom: " + tom.getSavings());
(A) tom: 1000.0
sue: 1500.0
(B) sue: 1500.0
tom: 1000.0
(C) sue: 0.0
tom: 0.0
(D) Error message
18. What is the output of the following program segment?

## Bank tom;

tom = new Bank(7500.0, 5000.0);
Bank sue;
sue $=$ new $\operatorname{Bank}(4000.0,3500.0)$;
System.out.println("tom: " + tom.getChecking() + " " + tom.getSavings());
System.out.println("sue: " + sue.getChecking() + " " + sue.getSavings()); tom.closeChecking(); tom.closeSavings();
sue.closeChecking(); sue.closeSavings();
(A) sue: $7500.0 \quad 5000.0$
tom: 4000.03500 .0
(B) tom: $7500.0 \quad 5000.0$
sue: 4000.03500 .0
(C) sue: 0.0
tom: 0.0
(D) Error message
19. Consider the two segments below.

Do both segments properly construct a tom object?
// segment 1
Bank tom;
tom = new $\operatorname{Bank}(7500,5000)$;
(A) Segment 1 is correct and segment 2 is not correct.
(B) Segment 1 is incorrect and segment 2 is correct.
(C) Both segments are incorrect.
(D) Both segments are correct.
20. Consider the two segments below.

Do both segments properly construct a tom object?
// segment 1 // segment 2
Bank tom; $\quad$ Bank tom $=$ new $\operatorname{Bank}(7,500.0,5,000.0) ;$
tom $=$ new $\operatorname{Bank}(7,500.0,5,000.0) ;$
(A) Segment 1 is correct and segment 2 is not correct.
(B) Segment 1 is incorrect and segment 2 is correct.
(C) Both segments are incorrect.
(D) Both segments are correct.
21. The Random class is found inside the $\qquad$ package.
(A) util.java
(B) java.util
(C) java.util.Random
(D) None of the above
22. Assume that rand is an object of the Random class. Which of the following statements controls the generation of the random numbers, such that each execution generates the same sequence of numbers?
(A) rand.setSeed(3333);
(B) rand.setSequence(3333);
(C) Random rand = new Random(3333);
(D) Both A and C
23. Assume that rand is an object of the Random class.

Which of the following statements generates a random number in the [0..100] range?
(A) int number $=$ rand.nextInt(100) $+\mathbf{0}$;
(B) int number = rand.nextInt(101);
(C) int number $=$ rand.nextInt(0) $+\mathbf{1 0 0}$;
(D) int number $=$ rand.nextInt( 0 ) $+\mathbf{1 0 1}$;
24. Assume that rand is an object of the Random class.

Which of the following statements generates a random number in the [1..1000] range?
(A) int number $=$ rand.nextInt(1000) $+\mathbf{1}$;
(B) int number = rand.nextInt(1000);
(C) int number = rand.nextInt(1001);
(D) int number $=$ rand.nextInt(1) $+\mathbf{1 0 0 0 ;}$
25. Assume that rand is an object of the Random class.

Which of the following statements generates a random number in the [200..600] range?
(A) int number $=$ rand.nextInt(200) $+\mathbf{6 0 0}$;
(B) int number $=$ rand.nextInt(600) $+\mathbf{2 0 0}$;
(C) int number $=$ rand.nextInt(400) $+\mathbf{2 0 0}$;
(D) int number $=$ rand.nextInt(401) $+\mathbf{2 0 0}$;
26. Assume that rand is an object of the Random class.

Which of the following statements generates a random number in the [41..101] range?
(A) int number $=$ rand.nextInt(41) $+\mathbf{1 0 1}$;
(B) int number $=$ rand.nextInt(101) +41 ;
(C) int number $=$ rand.nextInt(61) +41 ;
(D) int number $=$ rand.nextInt(60) +4 ;
27. Assume that rand is an object of the Random class.

Which of the following statements generates a random number in the [-41..101] range?
(A) int number $=$ rand.nextInt(143) +41 ;
(B) int number $=$ rand.nextInt(143) - 41;
(C) int number = rand.nextInt(101) - 41;
(D) int number $=$ rand.nextInt(41) $+\mathbf{1 0 1 ;}$
28. Assume that rand is an object of the Random class.

Which of the following statements generates a random number in the [-101..-41] range?
(A) int number = rand.nextInt(61) - 101;
(B) int number = rand.nextInt(61) - 41;
(C) int number $=$ rand.nextInt(-41) - 101;
(D) int number = rand.nextInt(-101) - 41;
29. Assume that rand is an object of the Random class.

Which of the following ranges is generated by this statement:
int number = rand.nextInt(1201) + 400; ?
(A) $[400 . .1200]$
(B) $[400 . .1201]$
(C) $[400 . .1600]$
(D) $[400 . .1601]$
30. Assume that rand is an object of the Random class.

Which of the following ranges is generated by this statement:
int number = rand.nextInt(72) + 57;
(A) $[57 . .72]$
(B) $[57 . .127]$
(C) $[57 . .128]$
(D) $[57 . .129]$
31. Assume that rand is an object of the Random class.

Which of the following ranges is generated by this statement:
int number = rand.nextInt(250) - 125;
(A) $[-125 . .125]$
(B) $[-124 . .124]$
(C) $[-125 . .124]$
(D) $[-125 . .126]$
(E) $[-125 . .250]$
32. Assume that rand is an object of the Random class.

Which of the following statements generates a random character in the ['A'..'Z'] range?
(A) int letter = rand.nextInt(65) + 26;
(B) int letter = rand.nextInt(26) $+\mathbf{6 5}$;
(C) char letter = (char) rand.nextInt(65) + 26;
(D) char letter $=($ char $)$ rand.nextInt(26) +65 ;
33. What is the output of the following program?
import java.util.Random;
public class Question33
\{
public static void main(String args[ ])
\{
Random rand = new Random(); rand.setSeed(100);
System.out.println(rand.nextInt(900) + 100); System.out.println(rand.nextInt(900) +100 ); System.out.println(rand.nextInt(900) + 100);
System.out.println(rand.nextInt(900) + 100); System.out.println(rand.nextInt(900) + 100); System.out.println(rand.nextInt(900) + 100); System.out.println(rand.nextInt(900) + 100); System.out.println(rand.nextInt(900) + 100); System.out.println(rand.nextInt(900) + 100); System.out.println(rand.nextInt(900) + 100);
\}
\}
(A) 10 different integers in the [100..999] range
(B) 10 identical integers in the $[\mathbf{1 0 0 . . 9 0 0}]$ range
(C) 10 different integers in the $[\mathbf{1 0 0 . . 9 0 0}]$ range
(D) 10 identical integers in the $[\mathbf{1 0 0 . . 1 0 0 0}]$ range
34. What is the output of the following program?

```
import java.util.Random;
public class Question34
{
    public static void main(String args[ ])
    {
        Random rand = new Random();
        rand.setSeed(100);
        System.out.println(rand.nextDouble());
        System.out.println(rand.nextDouble());
        System.out.println(rand.nextDouble());
        System.out.println(rand.nextDouble());
            System.out.println(rand.nextDouble());
    }
}
```

(A) 5 double numbers in an unknown range.
(B) 5 double numbers greater-or-equal to zero and less-than 100.
(C) 5 double numbers greater-or-equal to zero and less-than 1.
(D) 5 double numbers greater-or-equal to 100 .
35. The Math.random method generates a random number $\mathbf{x}$, such that
(A) $\mathbf{0}<=\mathbf{x}<\mathbf{1}$
(B) $\mathbf{0}<\mathbf{x}<\mathbf{1}$
(C) $\mathbf{0}<\mathbf{x}<=\mathbf{1}$
(D) $\mathbf{0}<\mathbf{x}$
36. Assume that rand is an object of the Random class.

Numbers generated by a call to Math.random() are in the same range as numbers called by
(A) rand.nextDouble();
(B) rand.nextInt();
(C) rand.nextDouble(0,1);
(D) rand.nextSeed();
37. Consider the following program segment.

```
for (int \(k=1 ; k<=10 ; k++\) )
\{
    double var \(1=\) Math.random () * 100;
    int var2 = (int) var1 + 10;
    System.out.print(var2 + " ");
\}
```

Which of the following are possible outputs of executing the program segment?
(A) $46 \quad 78 \quad 11 \quad 18998742 \quad 21 \quad 4378$
(B) $91 \quad 100 \quad 88 \quad 60 \quad 85 \quad 71 \quad 22 \quad 37 \quad 7549$
(C) $10 \quad 17 \quad 46 \quad 56 \quad 18 \quad 99 \quad 21 \quad 44 \quad 89 \quad 75$
(D) All of the above.
38. What is the range of possible random integers generated by the program segment in question 37 ?
(A) $[10 \ldots$. . 100]
(B) $[10 \ldots$ 109]
(C) $[11 \ldots$ 109]
(D) $[10 \ldots 110]$
39. Which of the following program segments generates a random integer in the range [1000 . . 9999] ?

| (A) |  |
| :---: | :---: |
| int range $=9999-1000+1$; <br> int randInt $=($ int $)$ Math.random () * range +1000 ; | $\begin{aligned} & \text { int range }=9999-1000+1 ; \\ & \text { int randInt }=(\text { int })(\text { Math.random } 0) * \text { range }+ \\ & 1000 ; \end{aligned}$ |
| (C) | (D) |
| int randInt $=($ int $)($ Math.random ()$* 9999)+1000$; | ```int range = 9999-1000 + 1; int randInt = (int) (Math.random() * range) + 1000;``` |

40. The DecimalFormat class is found inside the $\qquad$ package.
(A) text.java
(B) java.text
(C) java.util
(D) None of the above
41. The DecimalFormat class has the ability to
(A) round off decimal numbers to a specified number of digits.
(B) format numbers with leading zeroes.
(C) format numbers with trailing zeroes.
(D) do all of the above.
42. The kind of output created by an object of the DecimalFormat class is determined by
(A) the type of parameter used with the construction of a new DecimalFormat object.
(B) using the format method.
(C) using the output method.
(D) all of the above.
43. What is the output of this program?
import java.text.DecimalFormat;
public class Question43
\{
public static void main (String args[ ])
\{
DecimalFormat output = new DecimalFormat("000,000,000");
System.out.println(output.format(1));
System.out.println(output.format(12));
System.out.println(output.format(123));
System.out.println(output.format(1234));
System.out.println(output.format(12345));
System.out.println(output.format(123456));
System.out.println(output.format(1234567));
System.out.println(output.format(12345678));
System.out.println(output.format(123456789));
\}
\}

| (A) | 1 | (B) | 1 | (C) | 000,000,001 | (D) | 000000001 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 12 |  | 12 |  | 000,000,012 |  | 000000012 |
|  | 123 |  | 123 |  | 000,000,123 |  | 000000123 |
|  | 1,234 |  | 1,234 |  | 000,001,234 |  | 000001234 |
|  | 1,234,5 |  | 12,345 |  | 000,012,345 |  | 000012345 |
|  | 1,234,56 |  | 123,456 |  | 000,123,456 |  | 000123456 |
|  | 1,234,567 |  | 1,234,567 |  | 001,234,567 |  | 001234567 |
|  | 1,234,567,8 |  | 12,345,678 |  | 012,345,678 |  | 012345678 |
|  | 1,234,567,89 |  | 123,456,789 |  | 123,456,789 |  | 123456789 |

(E) Error Message
44. What is the output of this program?
import java.text.DecimalFormat;
public class Question44
\{
public static void main (String args[ ])
\{
DecimalFormat output = new DecimalFormat("0000000");
System.out.println(output.format(1));
System.out.println(output.format(12));
System.out.println(output.format(123));
System.out.println(output.format(1234));
System.out.println(output.format(12345));
System.out.println(output.format(123456));
System.out.println(output.format(1234567));
System.out.println(output.format(12345678));
System.out.println(output.format(123456789));
\}
\}

| (A) | 1 | (B) | 1 | (C) | 000000001 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 12 |  | 12 |  | 000000012 |
|  | 123 |  | 123 |  | 000000123 |
|  | 1234 |  | 1234 |  | 000001234 |
|  | 12345 |  | 12345 |  | 000012345 |
|  | 123456 |  | 123456 |  | 000123456 |
|  | 1234567 |  | 1234567 |  | 001234567 |
|  | 12345678 |  | 12345678 |  | 012345678 |
|  | 123456789 |  | 123456789 |  | 123456789 |

(D) 0000001

0000012
0000123
0001234
0012345
0123456
1234567
12345678
123456789
(E) Error Message

| 45. What is the output of this program? |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ```public class Question45 { public static void main (String args[ ]) { DecimalFormat output1 = new DecimalFormat("$0.00"); DecimalFormat output2 = new DecimalFormat("00.0000"); DecimalFormat output3 = new DecimalFormat("0,000,000"); double millionPI = 1000000.0 * Math.PI; System.out.println(output1.format(Math.PI)); System.out.println(output2.format(Math.PI)); System.out.println(output3.format(millionPI)); }``` |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| (A) | $\begin{aligned} & \$ 3.14 \\ & \mathbf{0 3 . 1 4 1 6} \\ & \mathbf{3 , 1 4 1 , 5 9 3} \end{aligned}$ |  | $\begin{aligned} & \$ 3.14 \\ & \mathbf{0 3 . 1 4 1 6} \\ & \mathbf{3 , 1 4 1 , 5 9 2} \end{aligned}$ |  | $\begin{aligned} & 3.14 \\ & \mathbf{0 3 . 1 4 1 6} \\ & \mathbf{3 , 1 4 1 , 5 9 3} \end{aligned}$ | (D) | $\begin{aligned} & \text { 3,141,593 } \\ & \mathbf{0 3 . 1 4 1 6} \\ & \$ 3.14 \end{aligned}$ |
| (E) Error Message |  |  |  |  |  |  |  |

46. A wrapper class creates objects capable of
(A) wrapping one class inside another class.
(B) wrapping multiple classes inside one object.
(C) storing primitive data values like int and double.
(D) combining multiple objects inside a single class.
47. Which of the following statements constructs an Integer object correctly?
(A) Integer obj = new Integer(100);
(B) Integer obj = new Integer();
(C) Integer obj = new Integer(int 100);
(D) All of the above.
48. A feature in Java version 5.0 and later, which automatically handles wrapping, but is not used on the AP Computer Science Examination is called
(A) auto-wrapping.
(B) boxing.
(C) box-wrapping.
(D) auto-boxing.
49. Integer.MAX_VALUE and Integer.MIN_VALUE are examples of
(A) object methods.
(B) class methods.
(C) constant fields or attributes.
(D) variable fields or attributes.
50. In the statement int temp = Integer.MAX_VALUE + 1; variable temp stores
(A) a negative integer value.
(B) an integer value larger than the maximum Integer value.
(C) the maximum Integer value, since the larger value is not accepted.
(D) a real number value, which can handle larger values than integers.
51. drawPolygon \& fillPolygon are both methods of the $\qquad$ class.
(A) Math
(B) Random
(C) DecimalFormat
(D) Polygon
(E) Graphics
52. nextInt \& nextDouble are both methods of which classes?
(A) Math and Random
(B) Random and Scanner
(C) DecimalFormat and Color
(D) Polygon and Graphics
(E) Graphics and Scanner
53. Your monitor can display over 16 million different colors which are created by combining three primary colors. Which of the following is NOT one of those three primary colors?
(A) red
(B) yellow
(C) green
(D) blue
54. Assume $\mathbf{g}$ is an object of the Graphics class.

Which of the following is using an anonymous object?
(A) g.setColor(green);
(B) g.setColor(Color.green);
(C) g.setColor(new Color(20,200,20));
(D) Color myGreen $=$ new $\operatorname{Color}(20,200,20)$;
g.setColor(myGreen);

In questions 55 through 58, refer to the following program segment which draws many lines all over an $\mathbf{8 0 0} \times \mathbf{6 0 0}$ Applet window.

```
Random rndInt = new Random(12345);
for(int k=1;k<=1000;k++)
{
    int x1 = rndInt.nextInt(800);
    int y1 = rndInt.nextInt(600);
    int x2 = rndInt.nextInt(800);
    int y2 = rndInt.nextInt(600);
    g.drawLine(x1,y1,x2,y2);
}
```

55. How would you change this program to make the lines draw only in the TOP half of the screen?
(A) Change the 1000 to 500
(B) Change the 800 's to 400 's
(C) Change the 600's to 300 's
(D) All of the above
(E) Choices B and C only
56. How would you change this program to make the lines draw only in the LEFT half of the screen?
(A) Change the 1000 to 500
(B) Change the 800's to 400's
(C) Change the 600's to 300's
(D) All of the above
(E) Choices B and C only
57. How would you change this program to make it display half as many LINES?
(A) Change the 1000 to 500
(B) Change the 800 's to 400 's
(C) Change the 600's to 300's
(D) All of the above
(E) Choices B and C only

## In questions 55 through 58, refer to the following program segment which draws many lines all over an $800 \times 600$ Applet window.

```
Random rndInt = new Random(12345);
for(int k=1;k<=1000;k++)
{
    int x1 = rndInt.nextInt(800);
    int y1 = rndInt.nextInt(600);
    int x2 = rndInt.nextInt(800);
    int y2 = rndInt.nextInt(600);
    g.drawLine(x1,y1,x2,y2);
}
```

58. How would you change this program to make the lines draw only in the TOP-LEFT QUARTER of the screen?
(A) Change the 1000 to 500
(B) Change the 800 's to 400 's
(C) Change the 600's to 300's
(D) All of the above
(E) Choices B and C only
59. Which of the following program scenarios can cause a problem when using the Scanner class?
(A) The program enters only numbers (ints or doubles)
(B) The program enters only Strings
(C) The program enters a number (int or double) BEFORE entering a string.
(D) The program enters a number (int or double) AFTER entering a string.
60. Assume $\mathbf{g}$ is an object of the Graphics class.

Which of the following will change the graphics color to a shade of red?
(A) g.setColor(new Color(200,0,0));
(B) g.setColor(new Color(200,200,200));
(C) g.setColor(new Color $(0,0,0)$ );
(D) g.setColor(new Color $(255,255,255)$ );
61. What is the output of this program segment?

```
Random rnd = new Random(1234);
for (int count = 1; count <= 1000; count++)
{
    int red = rnd.nextInt (256);
    int green = rnd.nextInt (256);
    int blue = rnd.nextInt (256);
    g.setColor (new Color(red,green,blue));
    int xl = rnd.nextInt (800);
    int yl = rnd.nextInt (600);
    int x2 = rnd.nextInt (800);
    int y2 = rnd.nextInt (600);
    int diameter = rnd.nextInt (200);
    int shape = 0;
    switch (shape)
    {
        case 0 : g.drawLine(x1,y1, x2,y2); break;
        case 1 : g.fillRect(x1,y1,50,50); break;
        case 2 : g.fillOval(x1,y1, diameter, diameter);
    }
}
```

(A)

(C)

(B)

(D)

(E) No Output
62. What is the output of this program segment?

```
Random rnd = new Random(1234);
for (int count = 1; count <= 1000; count++)
{
    int red = rnd.nextInt (256);
    int green = rnd.nextInt (256);
    int blue = rnd.nextInt (256);
    g.setColor (new Color(red,green,blue));
    int x1 = rnd.nextInt (800);
    int y1 = rnd.nextInt (600);
    int x2 = rnd.nextInt (800);
    int y2 = rnd.nextInt (600);
    int diameter = rnd.nextInt (200);
    int shape = 1;
    switch (shape)
    {
        case 0 : g.drawLine(x1,y1, x2,y2); break;
        case 1 : g.fillRect(x1,y1,50,50); break;
        case 2 : g.filloval(x1,y1,diameter, diameter);
    }
}
```

(A)

(C)

(B)

(D)

(E) No Output
63. What is the output of this program segment?

```
Random rnd = new Random(1234);
for (int count = 1; count <= 1000; count++)
{
    int red = rnd.nextInt (256);
    int green = rnd.nextInt (256);
    int blue = rnd.nextInt (256);
    g.setColor (new Color(red,green,blue));
    int x1 = rnd.nextInt (800);
    int y1 = rnd.nextInt (600);
    int x2 = rnd.nextInt (800);
    int y2 = rnd.nextInt (600);
    int diameter = rnd.nextInt (200);
    int shape = 2;
    switch (shape)
    {
        case 0 : g.drawLine(x1,y1, x2,y2); break;
        case 1 : g.fillRect(x1,y1,50,50); break;
        case 2 : g.filloval(x1,y1,diameter,diameter);
    }
}
```

(A)

(C)

(B)

(D)

(E) No Output
64. What is the output of this program segment?

Random rnd $=$ new Random (1234);
for (int count $=1$; count $<=1000$; count++)
\{
int red $=$ rnd.nextInt (256);
int green $=$ rnd. nextInt (256);
int blue $=$ rnd.nextInt (256);
g. setColor (new Color (red, green, blue));
int $x 1=$ rnd.nextInt (800);
int $y 1=$ rnd. nextInt (600);
int $x 2=$ rnd. nextInt (800);
int $y^{2}=$ rnd. nextInt (600);
int diameter $=$ rnd.nextInt (200);
int shape $=3$;
switch (shape)
\{
case 0 : g.drawLine ( $\mathrm{x} 1, \mathrm{y} 1, \mathrm{x} 2, \mathrm{y} 2$ ) ; break;
case 1 : g.fillRect (x1,y1,50,50); break;
case 2 : g.filloval(x1,y1, diameter, diameter);
\}
)
(A)

(C)

(B)

(D)

(E) No Output
65. What is the output of this program segment?

```
Random rnd = new Random (1234);
for (int count = 1; count <= 1000; count++)
{
    int red = rnd.nextInt (256);
    int green = rnd.nextInt (256);
    int blue = rnd.nextInt (256);
    g.setColor (new Color(red,green,blue));
    int x1 = rnd.nextInt (800);
    int y1 = rnd.nextInt (600);
    int x2 = rnd.nextInt (800);
    int y2 = rnd.nextInt (600);
    int diameter = rnd.nextInt (200);
    int shape = rnd.nextInt (3);
    switch (shape)
    {
        case 0 : g.drawLine (x1,y1, x2, y2); break;
        case 1 : g.fillRect(x1,y1,50,50); break;
        case 2 : g.filloval(x1,y1, diameter, diameter);
    }
}
```

(A)

(C)

(B)

(D)

(E) No Output

