13. Consider the following method.

```
// precondition: x >= 0
public void mystery(int x)
{
   if ((x / 10) != 0)
   {
      mystery(x / 10);
   }

   System.out.print(x % 10);
}
```

Which of the following is printed as a result of the call mystery(123456) ?

(A) 16

(B) 56

(C) 123456

(D) 654321

(E) Many digits are printed due to infinite recursion.

39. Consider the following recursive method.

```
public static String recur(int val)
{
   String dig = "" + (val % 3);

   if (val / 3 > 0)
      return dig + recur(val / 3);

   return dig;
}
```

What is printed as a result of executing the following statement?

```
System.out.println(recur(32));
```

(A) 20

(B) 102

(C) 210

(D) 1020

(E) 2101

40. Consider the following method.

```
public String goAgain(String str, int index)
{
  if (index >= str.length())
    return str;

  return str + goAgain(str.substring(index), index + 1);
}
```

What is printed as a result of executing the following statement?

```
System.out.println(goAgain("today", 1));
```

(A) today

(B) todayto

(C) todayoday

(D) todayodayay

(E) todayodaydayayy

26. Assume that methods f and g are defined as follows.

```
public int f(int x)
{
   if (x <= 0)
   {
      return 0;
   }
   else
   {
      return g(x - 1);
   }
}

public int g(int x)
{
   if (x <= 0)
   {
      return 0;
   }
   else
   {
      return (f(x - 1) + x);
   }
}
```

What value is returned as a result of the call f(6) ?

(A) 0

(B) 3

(C) 6

(D) 9

(E) 12

28. Consider the following static method.

```
private static void recur(int n)
{
  if (n != 0)
  {
    recur(n - 2);
    System.out.print(n + " ");
  }
}
```

What numbers will be printed as a result of the call recur(7) ?

(A) -1   1   3   5   7

(B) 1   3   5   7

(C) 7   5   3   1

(D) Many numbers will be printed because of infinite recursion.

(E) No numbers will be printed because of infinite recursion.