AP Computer Science A   Name _____
Unit 9 - Recursion Practice Worksheet   Date _____ Period _____

Using the method on the left, determine what is returned or printed by the method call on the right.
Show all work. Do not use a computer!!!

1)   public int mystery (int a, int b) {   mystery(4, 6)
                if (a == 1)
                        return b;
                else
                        return a * mystery (a - 1, b);
        }

2)   public void trickery (int n) {   trickery(35)
                if (n > 1)
                        trickery (n / 2);
                System.out.print (n + " ");
        }

3)   public int villainy (int n) {   villainy(38)
                if (n == 0)
                        return 0;
                else
                        return (n + villainy (n / 3) * 4);
        }

```
4)    public int interesting ( int a, int b )  {                              interesting( 3, 4 )
          if ( b == 1 )
                  return a * a;
          else if ( b == 0 )
                  return a;
          else
                  return interesting ( a , b - 2 ) + interesting ( a, b - 1 );
      }
```

```
5)    public void curses ( int n )  {                                     curses ( 72 )
          System.out.println ( n + " " );
          if ( n <= 1 )
                  System.out.println ( "repeat after me . . . " );
          else
                  curses ( ( n - 1 ) / 3 );
          System.out.print ( n + " " );
      }
```