

Problem1) from the Deitel & Deitel (ch4, 4.16)

What does the following program print?

```
public class Mystery
{
    public static void main( String[] args )
    {
        int y;
        int x =1;
        int total = 0;

        while(x<=10)
        {
            y = x * x;
            System.out.println( y );
            total += y;
            ++x;
        }
        System.out.printf( "Total is %d\n", total );
    }
}
```

Problem2) from the Deitel & Deitel (ch4, 4.22)

Write a Java application that uses looping to print the following table of values:

N	10*N	100*N	1000*N
1	10	100	1000
2	20	200	2000
3	30	300	3000
4	40	400	4000
5	50	500	5000

Problem3) from the Deitel & Deitel (ch5, 5.10)

What does the following program do?

```
public class Printing
{
    public static void main( String[] args )
    {
        for ( int i = 1; i <= 10; i++ )
        {
            for ( int j = 1; j <= 5; j++ )
                System.out.print( '@' );
            System.out.println();
        }
    }
}
```

Problem4) from the Deitel & Deitel (ch5, 5.12)

Write an application that calculates the product of the odd integers from 1 to 15.

Problem5) from the Deitel & Deitel (ch5, 5.13)

Factorials are used frequently in probability problems. The factorial of a positive integer n (written $n!$ and pronounced “ n factorial”) is equal to the product of the positive integers from 1 to n . Write an application that calculates the factorials of 1 through 20. Use type long. Display the results in tabular format. What difficulty might prevent you from calculating the factorial of 100?