

While/for loops Exercises

Determine the output for each program that follows.
Print the exact output in the blank cell next to the program.
If a program has no output, print *No Output*.

```
public class Ex0501
{
    public static void main (String args[])
    {
        int x = 100;
        int y = 100;
        if (x == y)
            System.out.println("Hello");
    }
}
```

```
public class Ex0502
{
    public static void main (String args[])
    {
        int x = 100;
        int y = 50;
        if (x == y)
            System.out.println("Hello");
    }
}
```

```
public class Ex0503
{
    public static void main (String args[])
    {
        int x = 100;
        int y = 101;
        if (x > y)
            System.out.println("Hello");
        else
            System.out.println("Goodbye");
    }
}
```

```
public class Ex0504
{
    public static void main (String args[])
    {
        int x = 100;
        int y = 101;
        if (x < y)
            System.out.println("Hello");
        else
            System.out.println("Goodbye");
    }
}
```

```
public class Ex0505
{
    public static void main (String args[])
    {
        for (int x = 0; x <= 8; x+=2)
            System.out.println("x = " + x);
    }
}
```

```
public class Ex0506
{
    public static void main (String args[])
    {
        for (int x = -1; x < 8; x+=3)
            System.out.println("x = " + x);
    }
}
```

```
public class Ex0507
{
    public static void main (String args[])
    {
        for (int x = 1; x < 100; x*=3)
            System.out.println("x = " + x);
    }
}
```

```
public class Ex0508
{
    public static void main (String args[])
    {
        for (int x = 200; x >= 25; x/=2)
            System.out.println("x = " + x);
    }
}
```

```
public class Ex0509
{
    public static void main (String args[])
    {
        for (double x = 0; x < 4; x+=0.5)
            System.out.println("x = " + x);
    }
}
```

```
public class Ex0510
{
    public static void main (String args[])
    {
        int x = 0;
        int y = 0;
        for (x = 1; x <= 25; x+=3)
            y++;
        System.out.println("y = " + y);
    }
}
```

```
public class Ex0511
{
    public static void main (String args[])
    {
        int x = 10;
        int y = 0;
        for (x = 3; x > 0; x--)
            y++;
        System.out.println("y = " + y);
    }
}
```

```
public class Ex0512
{
    public static void main (String args[])
    {
        int x = 0;
        int y = 0;
        while (x < 3)
        {
            y++;
            x = y;
        }
        System.out.println("y = " + y);
    }
}
```

```
public class Ex0513
{
    public static void main (String args[])
    {
        int x = 1;
        int y = 1;
        while (x < 15)
        {
            y = x + 2;
            x = y + 3;
        }
        System.out.println("y = " + y);
    }
}
```

```
public class Ex0514
{
    public static void main (String args[])
    {
        int x = 0;
        int y = 0;
        while (x < 15)
        {
            y = x * 2;
            x++;
        }
        System.out.println("x = " + x);
        System.out.println("y = " + y);
    }
}
```

```
public class Ex0515
{
    public static void main (String args[])
    {
        int x = 2;
        while (x < 10)
        {
            if (x % 2 == 0)
                x+=3;
            else
                x+=2;
        }
        System.out.println("x = " + x);
    }
}
```

```
public class Ex0516
{
    public static void main (String args[])
    {
        int x = 2;
        while (x < 10)
        {
            if (x % 2 == 0)
                x+=3;
            else
                x+=2;
        }

        System.out.println("x = " + x);
    }
}
```

```
public class Ex0517
{
    public static void main (String args[])
    {
        int x = 5;
        int y = 15;
        while (x < y)
        {
            x = y + 2;
            y = x - 2;
        }

        System.out.println("x = " + x);
    }
}
```

```
public class Ex0518
{
    public static void main (String args[])
    {
        int x = 10;
        int y = 2;
        while (y < x)
        {
            if (x % 2 == 0)
                x += 5;
            else
                y += 2;
        }

        System.out.println("x = " + x);
        System.out.println("y = " + y);
    }
}
```

```
public class Ex0519
{
    public static void main (String args[])
    {
        int x = 3;
        int y = 5;
        int z = 9;
        while (z > x + y)
        {
            x = y + z;
            y = x + z;
            z = x - y;
        }
        System.out.println("x = " + x);
        System.out.println("y = " + y);
        System.out.println("z = " + z);
    }
}
```

```
public class Ex0520
{
    public static void main (String args[])
    {
        int k = 0;
        int x = 2;
        int y = 3;
        int z = 4;
        for (k = 1; k <= 3; k++)
        {
            x = y + z;
            y = x + z;
            z = x - y;
        }
        System.out.println("x = " + x);
        System.out.println("y = " + y);
        System.out.println("z = " + z);
        System.out.println("k = " + k);
    }
}
```

```
public class Ex0521
{
    public static void main (String args[])
    {
        int x = 216;
        int y = 108;
        int z = 1;
        while (z != 0)
        {
            z = x % y;
            if (z == 0)
                System.out.println("y = " + y);
            else
            {
                x = y;
                y = z;
            }
        }
    }
}
```