

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*.

<pre>public class Ex0501 { public static void main (String args[]) { int x = 100; int y = 100; if (x == y) System.out.println("Hello"); } }</pre>	Hello
<pre>public class Ex0502 { public static void main (String args[]) { int x = 100; int y = 50; if (x == y) System.out.println("Hello"); } }</pre>	<i>No Output</i>
<pre>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"); } }</pre>	Goodbye

<pre>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"); } }</pre>	Hello
<pre>public class Ex0505 { public static void main (String args[]) { for (int x = 0; x <= 8; x+=2) System.out.println("x = " + x); } }</pre>	X = 0 X = 2 X = 4 X = 6 X = 8
<pre>public class Ex0506 { public static void main (String args[]) { for (int x = -1; x < 8; x+=3) System.out.println("x = " + x); } }</pre>	X = -1 X = 2 X = 5
<pre>public class Ex0507 { public static void main (String args[]) { for (int x = 1; x < 100; x*=3) System.out.println("x = " + x); } }</pre>	x = 1 x = 3 x = 9 x = 27 x = 81

<pre>public class Ex0508 { public static void main (String args[]) { for (int x = 200; x >= 25; x/=2) System.out.println("x = " + x); } }</pre>	<p>x = 200</p> <p>x = 100</p> <p>x = 50</p> <p>x = 25</p>
<pre>public class Ex0509 { public static void main (String args[]) { for (double x = 0; x < 4; x+=0.5) System.out.println("x = " + x); } }</pre>	<p>X = 0</p> <p>X = 0.5</p> <p>X = 1</p> <p>X = 1.5</p> <p>X = 2</p> <p>X = 2.5</p> <p>X = 3</p> <p>X = 3.5</p>
<pre>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); } }</pre>	<p>Y = 9</p>
<pre>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); } }</pre>	<p>Y = 3</p>

```
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);
    }
}
```

Y = 3

```
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);
    }
}
```

Y = 13

```
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);
    }
}
```

X = 15
Y = 28

```
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);
    }
}
```

X = 11

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

X = 11

```
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);
    }
}
```

X = 17

```
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);
    }
}
```

X = 15

Y = 16

```
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);
    }
}
```

X = 14

Y = 23

Z = -9

```
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);
    }
}
```

X = 7
Y = 11
Z = -4
K = 4

```
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;
            }
        }
    }
}
```

Y = 108