Trace the following program and specify its output.

```java
public class Trace {
    public static void main( String[] args ) {
        System.out.println( "main1" );
        foo1();
        System.out.println( "main2" );
        foo2();
        System.out.println( "main3" );
        foo3();
    }

    public static void foo1() {
        System.out.println( "A" );
        foo2();
    }

    public static void foo2() {
        foo3();
        System.out.println( "B" );
    }

    public static void foo3() {
        System.out.println( "C" );
    }
}
```

How many times does the body of this loop execute? ________

```java
for ( int i = 11; i > 0; --i ) {
    System.out.println( "CSE8A Rocks! " + i );
}
```

With regards to the loop above, what is the last value of i that is printed? ________

Which is the correct if statement to make this code change the right half of a Picture to black? ________

```java
public void paintItBlack() {
    Pixel pixel = null;
    for ( int y = 0; y < this.getHeight(); y++ ) {
        for ( int x = 0; x < this.getWidth(); x++ ) {
            /* MISSING IF STATEMENT */
            pixel = this.getPixel( x, y );
            pixel.setColor( Color.BLACK );
        }
    }
}
```

A) if ( x > this.getHeight() / 2 )
B) if ( y > this.getHeight() / 2 )
C) if ( x > this.getWidth() / 2 )
D) if ( y > this.getWidth() / 2 )
The following method mirrors a Picture horizontally top to bottom. This is a Picture that we are applying the mirroring to.

```java
public void mirrorVertically()
{
    int mirrorPoint = this.getHeight() / 2;
    Pixel topPixel = null;
    Pixel bottomPixel = null;
    Pixel mirrorPixel = null;

    for ( int x = 0; x < this.getWidth(); ++x )
    {
        for ( int y = 0; y < mirrorPoint; ++y )
        {
            topPixel = this.getPixel( x, y );
            bottomPixel = this.getPixel( x, this.getHeight() - 1 - y );
            mirrorPixel = this.getPixel( x, mirrorPoint );
            /* MISSING LINE */
        }
    }
}
```

Which missing line of code will correctly mirror this Picture horizontally top to bottom? _______

A) topPixel.setColor( bottomPixel.getColor() );
B) topPixel.setColor( mirrorPixel.getColor() );
C) mirrorPixel.setColor( topPixel.getColor() );
D) mirrorPixel.setColor( bottomPixel.getColor() );
E) bottomPixel.setColor( topPixel.getColor() );
F) bottomPixel.setColor( mirrorPixel.getColor() );
G) None of the above

What gets printed by the following code? _______

```java
int x = 13;
if ( x > 7 )
{
    x += 4;  // Same as x = x + 4;
} else
{
    x += 7;
} System.out.println( x );
```

What gets printed by the following code? _______

```java
int x = 13;
if ( x < 7 )
{
    x += 4;  // Same as x = x + 4;
} else if ( x <= 10 )
{
    x += 7;
} System.out.println( x );
```

What gets printed by the following code? _______

```java
int x = 13;
if ( x > 7 )
{
    x += 4;  // Same as x = x + 4;
} else if ( x >= 10 )
{
    x += 7;
} System.out.println( x );
```

What gets printed by the following code? _______

```java
int x = 13;
if ( x < 7 )
{
    x += 4;  // Same as x = x + 4;
} else
{
    x += 7;
} System.out.println( x );
```