
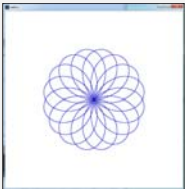
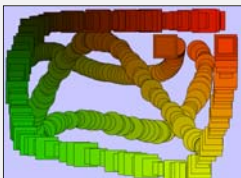


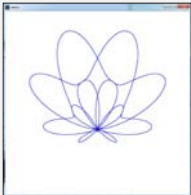
Images




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images.pptx

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Let's Start with a Favorite Image of Yours



It can be in .jpg, .bmp, or .png format

Each pixel contains a red-green-blue, each in the range 0-255

The image has an **aspect ratio**, which is the ratio of the number of Y pixels : the number of X pixels (this image's aspect ratio is 1:1)



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Loading and Drawing an Image


```

PImage MyImage;

void
setup( )
{
  size( 800, 800 );
  //MyImage = loadImage( "C:/MJB/Processing/ImageSketchBook/zelda.jpg" );
  MyImage = loadImage( "zelda.jpg" );
}

void
draw( )
{
  image( MyImage, 0, 0, 800, 800 );
}
  
```

What X-Y to draw its upper-left corner at.



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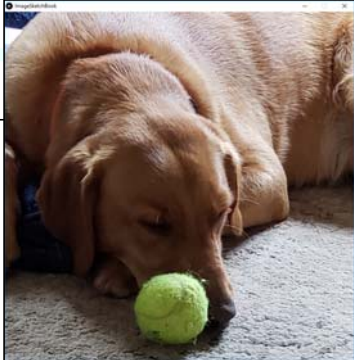
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Loading and Drawing an Image

```

void
setup( )
{
  size( 800, 800 );
  //MyImage = loadImage( "C:/MJB/Processing/ImageSketchBook/zelda.jpg" );
  MyImage = loadImage( "zelda.jpg" );
}

void
draw( )
{
  image( MyImage, 0, 0, 800, 800 );
}
  
```





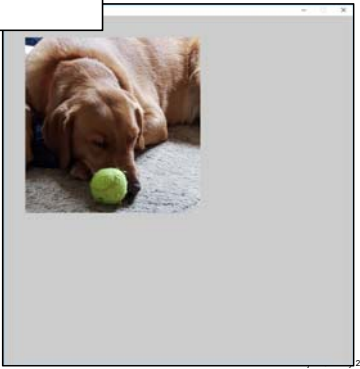
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What Happens if You Use Less Pixels than the Window Has?

5

```
void  
draw( )  
{  
  image( MyImage, 50, 50, 400, 400 );  
}
```

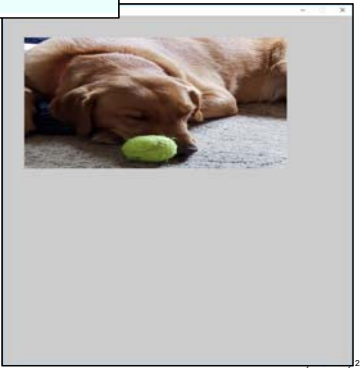


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What Happens if You Use a Different Aspect Ratio?

6

```
void  
draw( )  
{  
  image( MyImage, 50, 50, 600, 300 );  
}
```



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Translating an Image

7

```
void  
draw( )  
{  
  for( int i = 0; i < 6; i++ )  
  {  
    pushMatrix( );  
    translate( i*100, i*100 );  
    image( MyImage, 0, 0, 200, 200 );  
    popMatrix( );  
  }  
}
```

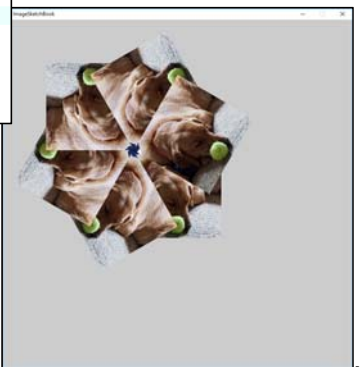


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Rotating an Image

8

```
void  
draw( )  
{  
  for( int i = 0; i < 6; i++ )  
  {  
    pushMatrix( );  
    translate( 300, 300 );  
    rotate( radians( i*60 ) );  
    image( MyImage, 0, 0, 200, 200 );  
    popMatrix( );  
  }  
}
```



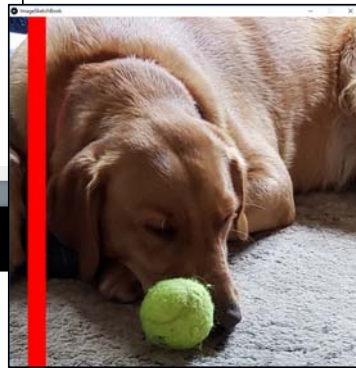
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Overwriting an Image

9

```
MyImage = loadImage( "testdog.jpg" );  
println( MyImage.width + " x " + MyImage.height );  
}  
  
void  
draw( )  
{  
  image( MyImage, 0, 0, 800, 800 );  
  
  for( int x = 100; x < 200; x = x + 1 )  
  {  
    for( int y = 0; y < MyImage.height; y = y + 1 )  
    {  
      color diff = color( 255, 0, 0 );  
      MyImage.set( x, y, diff );  
    }  
  }  
}
```

1920 x 1920

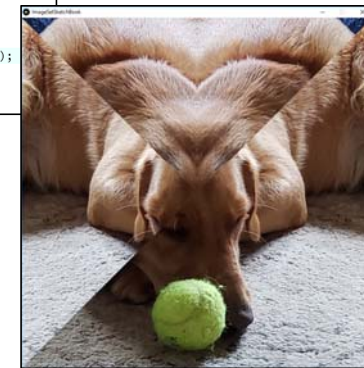


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Retrieving Image Colors

10

```
void  
draw( )  
{  
  image( MyImage, 0, 0, 800, 800 );  
  
  for( int x = 0; x < MyImage.width; x = x + 1 )  
  {  
    for( int y = 0; y < x; y = y + 1 )  
    {  
      color get = MyImage.get( x, y );  
      MyImage.set( MyImage.width - x, y, get );  
    }  
  }  
}
```



7/2, 2019