

## Megapixels Chart

Each colored box on the right represents a certain number of megapixels.

The numbers along the top and left side are print dimensions in inches at 300ppi (pixels per inch). Most books and magazines require 300ppi for photo quality. For example, the chart shows that you can make a 5" x 7" photo quality print from a 3 megapixel camera.

Notice that as the print size doubles, the megapixels required increases geometrically. You can make nice 8" x 10" prints with a 6 or 8 megapixel camera, but to make a true photo quality 16" x 20" print, you need between 24 and 30 megapixels.

Don't be fooled by manufacturers' claims that say you can make 16" x 20" prints from an 8 megapixel camera. While you certainly *can* make a print that size, it will not be **true photo quality**.

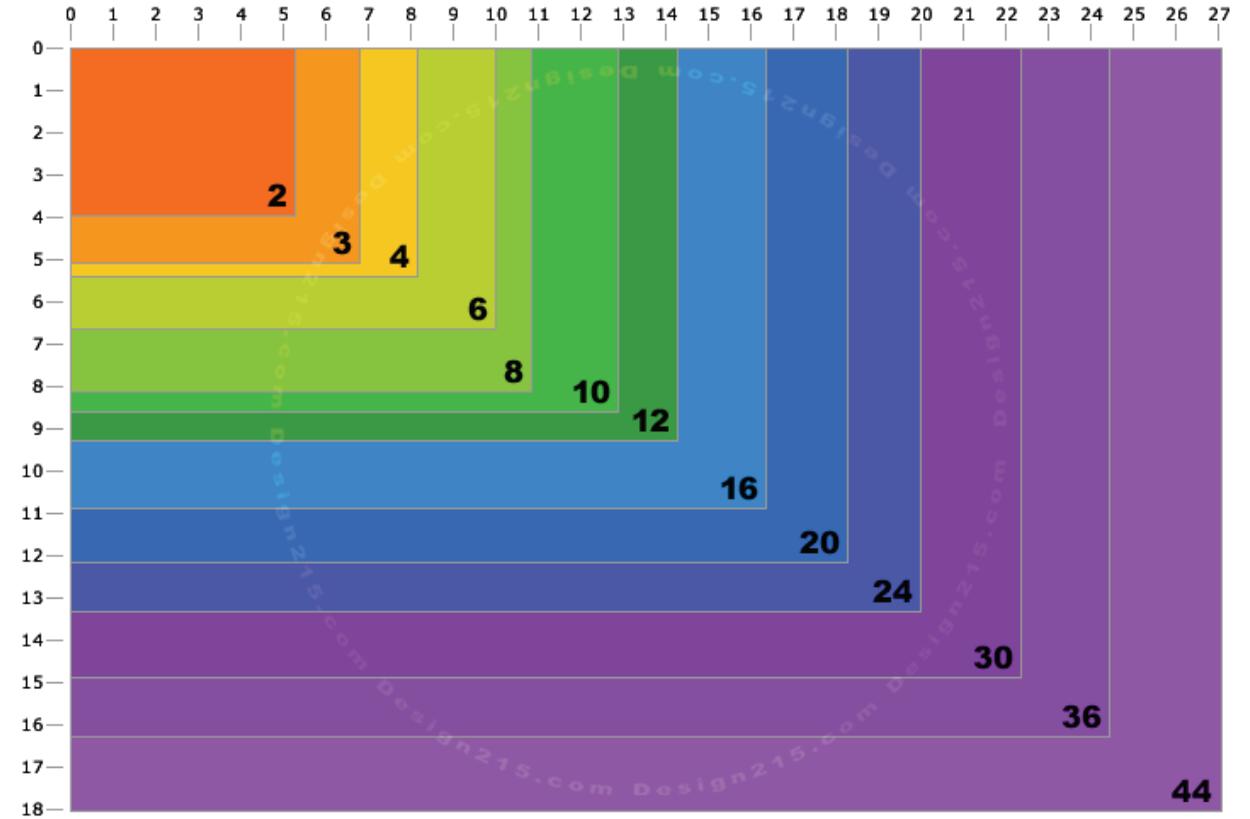
### Here's why:

A megapixel is 1 million pixels. It's an area measurement like square feet. A typical 8 megapixel camera produces images that are 3266 x 2450\* pixels. If you multiply 3266 by 2450, you get 8,001,700 or 8 million pixels.

To find the largest photo quality image you can print, divide each dimension by 300:  
 $3266 / 300 = 10.89$  inches  
 $2450 / 300 = 8.17$  inches

If you are not publishing your images in a book or magazine, and you're just making prints for yourself or your friends, you can "cheat". Good quality inkjet printers can make a nice looking print at 250 or 200ppi. At 200ppi, the maximum print size becomes:  
 $3266 / 200 = 16.33$  inches  
 $2450 / 200 = 12.25$  inches

If you know how to use image editing software like Photoshop, you can "cheat" even more by increasing the image size, and even doubling the number of pixels in the image. The quality of the camera and lense becomes more important at this point because any loss of detail or sharpness is magnified. If an image is enlarged too much in this manner, it will look "fuzzy" or "pixelated".



## Megapixels vs. Maximum Print Size Chart

Megapixels	Pixel Resolution*	Print Size @ 300ppi	Print size @ 200	Print size @ 150**
3	2048 x 1536	6.82" x 5.12"	10.24" x 7.68"	13.65" x 10.24"
4	2464 x 1632	8.21" x 5.44"	12.32" x 8.16"	16.42" x 10.88"
6	3008 x 2000	10.02" x 6.67"	15.04" x 10.00"	20.05" x 13.34"
8	3264 x 2448	10.88" x 8.16"	16.32" x 12.24"	21.76" x 16.32"
10	3872 x 2592	12.91" x 8.64"	19.36" x 12.96"	25.81" x 17.28"
12	4290 x 2800	14.30" x 9.34"	21.45" x 14.00"	28.60" x 18.67"
16	4920 x 3264	16.40" x 10.88"	24.60" x 16.32"	32.80" x 21.76"
35mm film, scanned	5380 x 3620	17.93" x 12.06"	26.90" x 18.10"	35.87" x 24.13"

\*Typical Resolution. Actual pixel dimensions vary from camera to camera.

\*\*At 150ppi, printed images will have visible pixels and details will look "fuzzy".