

Calculating Your Largest Image Size

One of the *Twelve essential Photographic Rules*, as published by Jason Schneider (originally published in November of 2004, and re-released last month, 9/2007) in [Popular Photography](#) is the **Largest Digital Print Rule**, which states that:

“To calculate in inches the largest photo-quality print you can make with a digital camera, divide the vertical and horizontal pixel counts (see your manual) by 200. For critical applications, or if you want exhibition-quality prints, divide the pixel counts by 250.”

Most photography rules come with a qualifier that basically says rules are made to be broken. This mentality really is meant to apply only for the rules of composition. Some of the rules of photography are more concrete and are simple facts that are mathematically derived based on formulas and, well, concrete numbers. The largest digital print rule is one of these, and if you want to produce sharp prints, the formula works.

This has a couple of real world translations. First and foremost, what it means is that your largest print size that you can produce will be determined in part by the limitations of your camera. So, if you want to get that latest 10 or 12 mega pixel DSLR camera, it will help to know what your max print size will be before putting down \$1200 (don't expect to print a 16x20 with one of these).

Secondly, this also should dictate the degree to which you crop images. If you remove a certain number of pixels, then you will be limited with regard to the largest size print you will be able to produce.

Third, and finally, by extension, this also means that printing outside of these ranges will likely yield less than satisfying results (if sharpness and clarity is your goal). While programs and plug-ins can “up-res” or “clean up” pixilation or “jaggies” (like the widely known Photoshop, Noise Ninja, and others) to a certain degree, the general rule of thumb still holds true.

With this in mind, I ran the formula through various image sizes, and rounded to the nearest whole inch for both general and critically sharp printing. I also added a column for mega pixel count as this is often referenced when referring to image sizes, so everyone can reference that against the maximum print size. Enjoy!

Megapixels	Image Size in Pixels (L x W)	Max Print Size (size/200)	Critically sharp print size (size/250)
1.6	1536 x 1024	7"x5"	6"x4"
2.8	2048 x 1365	10"x6"	8"x5"
6.3	3072 x 2048	15"x10"	12"x8"
8.0	3456 x 2304	17"x11"	13"x9"
11.2	4096 x 2731	20"x13"	16"X10"
17.5	5120 x 3413	25"x17"	20"x13"
25.2	6144 x 4096	30"x20"	24"x16"

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