

3.2.4 Calculate resolution for various displays (e.g., desktop, mobile, tablet, etc.)



Beau Oster

1-23-18 2nd

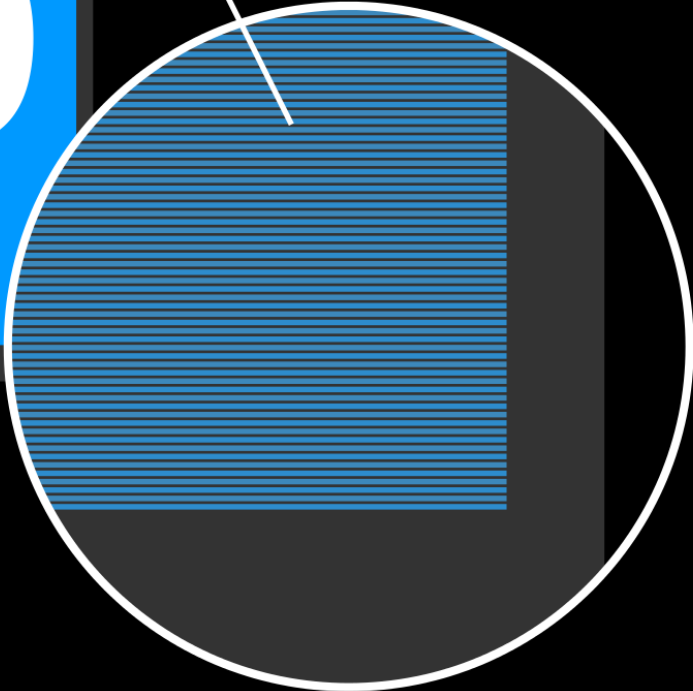
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"p" stands for progressive scan
1080 lines of vertical

"p" stands for progressive scan

1080 lines of vertical resolution



Asuming a 16:9 aspect ratio there are 1920 lines of horizontal resolution or 2,073,600 pixels (1920x1080)

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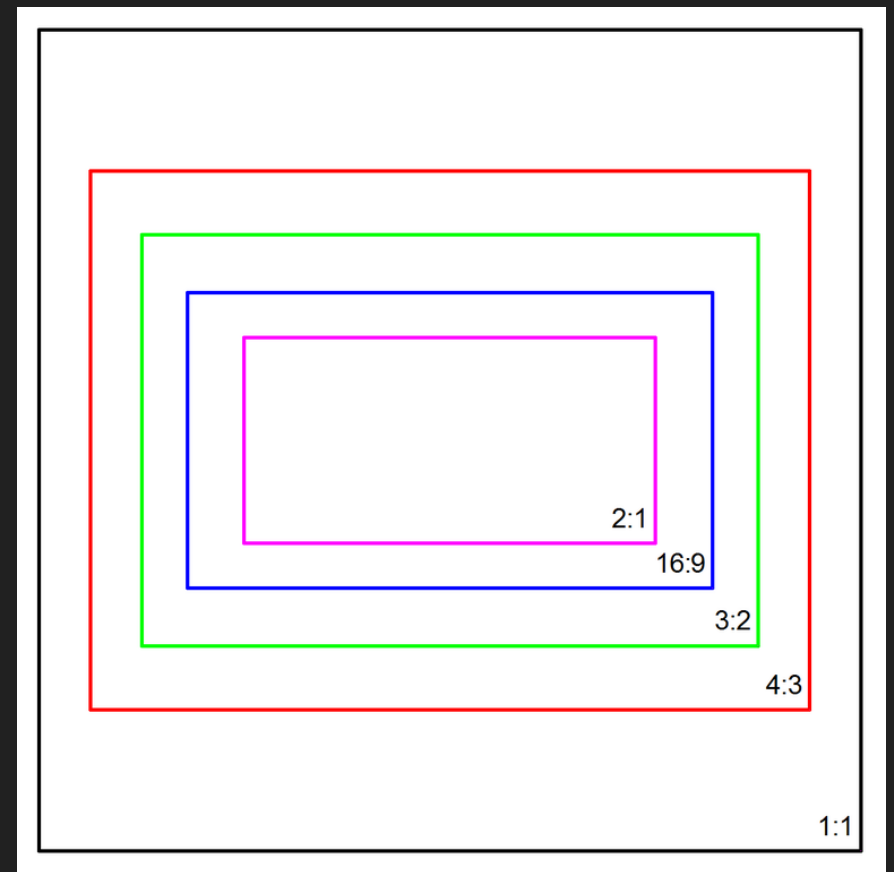
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○ Most web designers and developers agree that one of the best practices is to optimize a design for the resolution most popular with your audience.

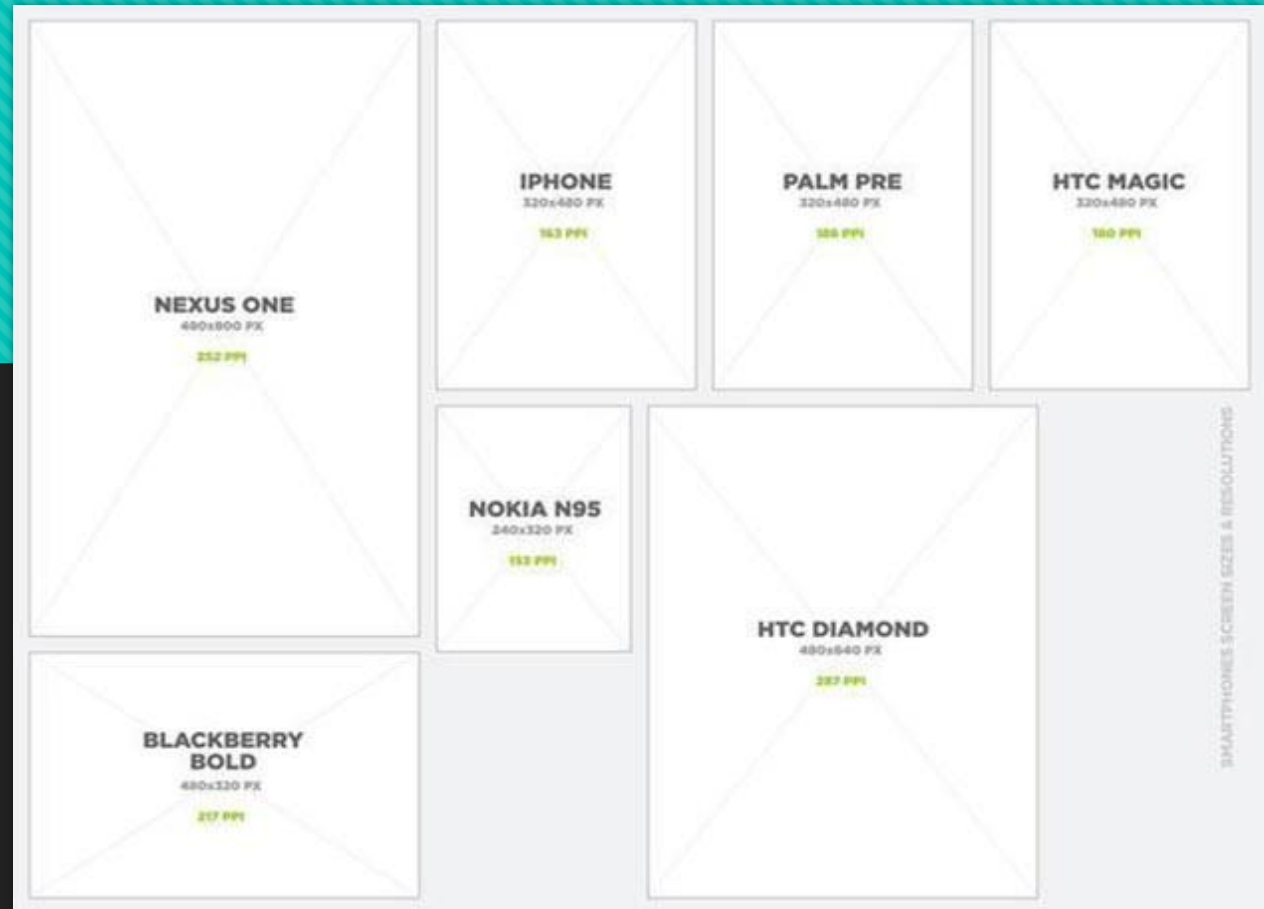
Aspect Ratio

- The Aspect Ratio is the ratio of the width to the height of an image or screen.
- Say you have a photo that is 1600 x 1200 pixels, but your blog only has space for a photo 400 pixels wide. In this scenario you would need to use a formula to calculate what your photos aspect ratio is.
- A good website to calculate aspect ratio is: <https://calculateaspectratio.com/>



Devices

Your screen resolution depends completely on the device you have, here are some screen resolutions:



Device	Resolution
iPhone 5	640 x 1136
iPhone 8	750 x 1334
iPhone 8 Plus	1242 x 2208 [Ⓢ]
iPhone X	1125 x 2436
iPad Mini	1536 x 2048
iPad Air	1536 x 2048
iPad Pro 10.5"	1668 x 2224
iPad Pro 12.9"	2048 x 2732
Watch 38mm	272 x 340
Watch 42mm	312 x 390

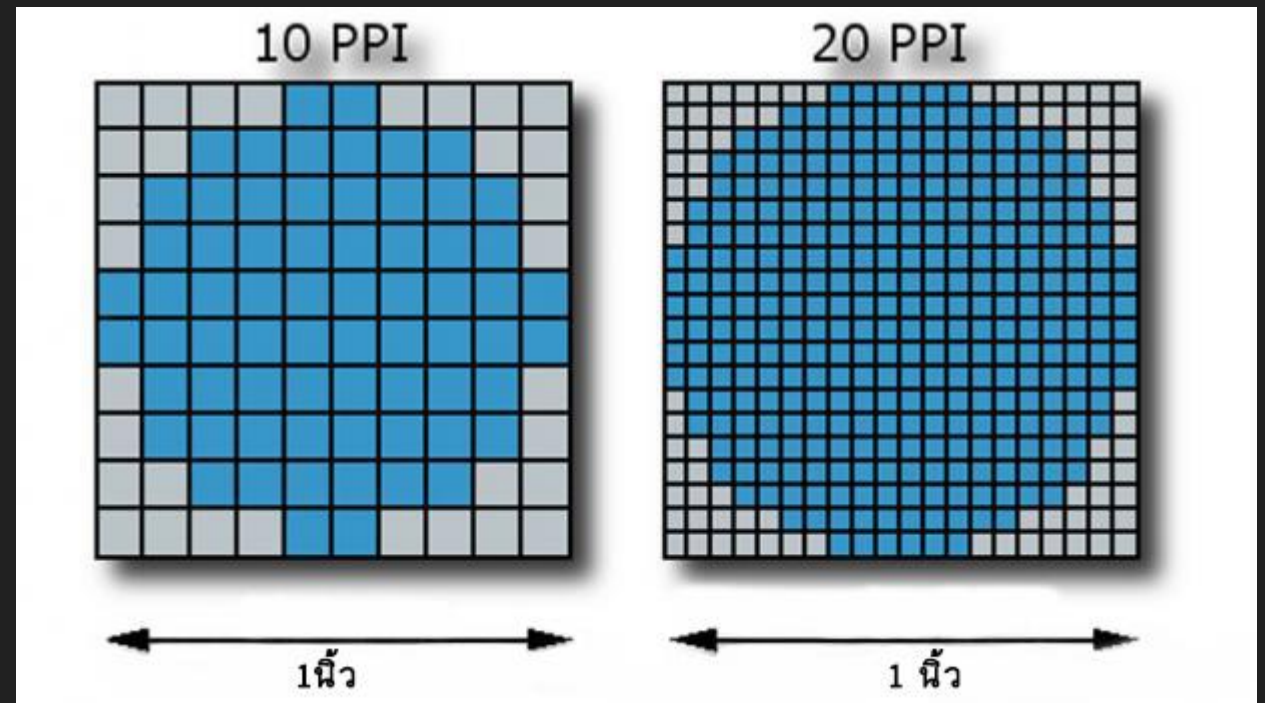
Screen Resolution Chart

- Dependent of which resolution you use you will have to change the aspect ratio of your images and other content ON the webpage.



PPI (Pixel Per Inch) (Pixel Density)

- This is how many pixels there are on your screen per inch. The higher density on pixels means it will seem more smooth to your eyes, the bigger the displays or resolutions, the smaller the PPI needs to be due to the length from your eyes.
- You can calculate PPI by take the total resolution, and dividing it by the total amount of inches your screen is, this equals the PPI.



Video



Resources



- <https://www.webydo.com/blog/web-design/screen-resolution/screen-resolution-and-web-design/>
- <http://screensiz.es/>
- https://andrew.hedges.name/experiments/aspect_ratio/
- <https://calculateaspectratio.com/>