

Aspect Ratios

A table illustrating the aspect ratios for common image sources, print sizes, paper sizes and monitor resolutions

	Name	Ratio	Decimal	Percentage	Key
Image Sources	Digital	4:3	1:1.33	75.00%	
	DSLR	3:2	1:1.5	66.67%	
	35mm film	3:2	1:1.5	66.67%	
	120 film	7:6	1:1.17	85.71%	
	APS film	16:9*	1:1.81	55.30%	
Standard Photo Sizes	5x3.5	10:7	1:1.43	70.00%	
	6x4	3:2	1:1.5	66.67%	
	7x5	7:5	1:1.4	71.43%	
	8x6	4:3	1:1.33	75.00%	
	9x6	3:2	1:1.5	66.67%	
	10x8	5:4	1:1.25	80.00%	
	12x8	3:2	1:1.5	66.67%	
	12x10	6:5	1:1.2	83.33%	
	14x11	14:11	1:1.27	78.57%	
	16x12	4:3	1:1.33	75.00%	
	18x12	3:2	1:1.5	66.67%	
Standard Paper Sizes	A5	7:5*	1:1.41	70.71%	
	A4	7:5*	1:1.41	70.71%	
	A3	7:5*	1:1.41	70.71%	
	A2	7:5*	1:1.41	70.71%	
	A1	7:5*	1:1.41	70.71%	
Standard Monitor Resolutions	SVGA	4:3	1:1.33	75.00%	
	XGA	4:3	1:1.33	75.00%	
	SXGA	5:4	1:1.25	80.00%	
	1080i	16:9*	1:1.78	56.22%	
	SXGA+	4:3	1:1.33	75.00%	
	WSXGA+	16:10	1:1.6	62.50%	
	1080p	16:9	1:1.78	56.25%	
	WUXGA+	16:10	1:1.6	62.50%	

What's it for?

This table is intended to help you compare aspect ratios, easily.

For example, using the table you could quickly find out whether or not a 35mm film print will be cropped if you print it on a 12x8 (it won't) or whether or not a 5x3.5 original will be cropped a lot or a little, if you enlarge it to A3 (it would, but only by a smidge).

Notes

The ratios marked with an asterisk are approximations. Technically, the standard sizes for these items do not result in these exact ratios here, e.g. A4 paper, mathematically, has an aspect ratio of 99:70, which is very nearly, but not quite the same as, 7:5. Accordingly, where the differences are minimal, they have been rounded, so that they can be compared easily.

The key colours indicate items which share an aspect ratio, e.g. all the items with a 3:2 aspect ratio are this colour

Generally, digital cameras, mobile phones and table (other than DSLRs) have image sensors that, natively, produce images with a 4:3 aspect ratio. However, there may be some exceptions to this and it is mostly academic, because the image will be processed by the in-camera software and therefore the software settings (rather than the camera's ccd sensor) will determine the aspect ratio of the resulting image file.