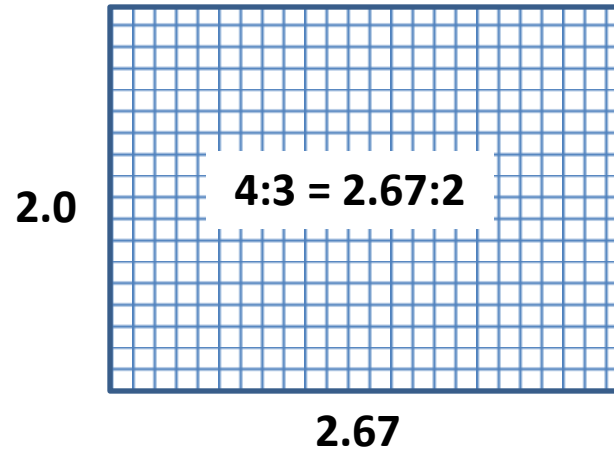
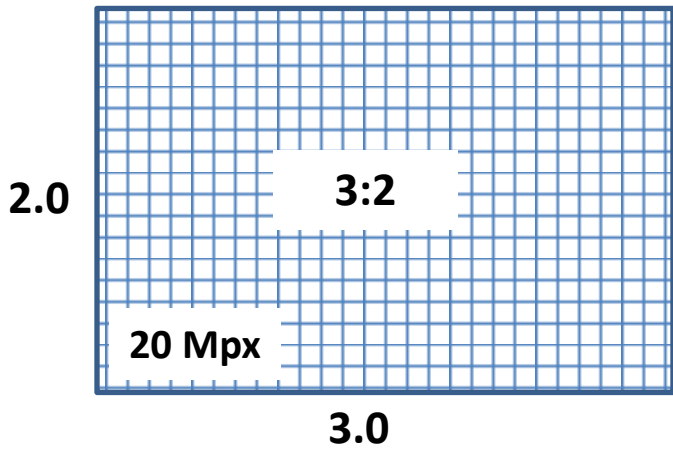


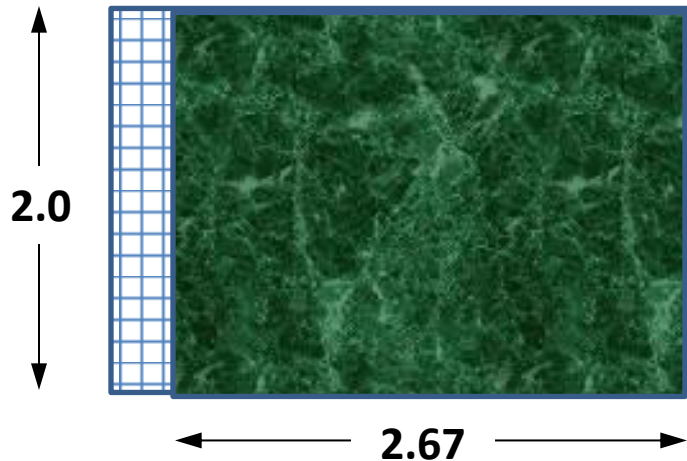
Role of Aspect Ratios in Photography

- **Definition : Aspect Ratio = Width/Height of something**
- **As a photographer, you need to be aware that there two different aspect ratios of interest;**
 - **Camera Sensor Aspect Ratio (specs list Max Resolution using all pixels)**
 - **Picture Aspect Ratio (selectable through camera settings or cropping)**
- **If you take a picture in which the picture aspect ratio does not match the aspect ratio of the camera sensor, you will be throwing away pixels**
- **Always shoot at Max Resolution**
- **If you have a favorite Picture Aspect Ratio, consider that in selecting your camera**

3:2 and 4:3 Aspect Ratio Camera Sensor Formats & Landscape Pictures

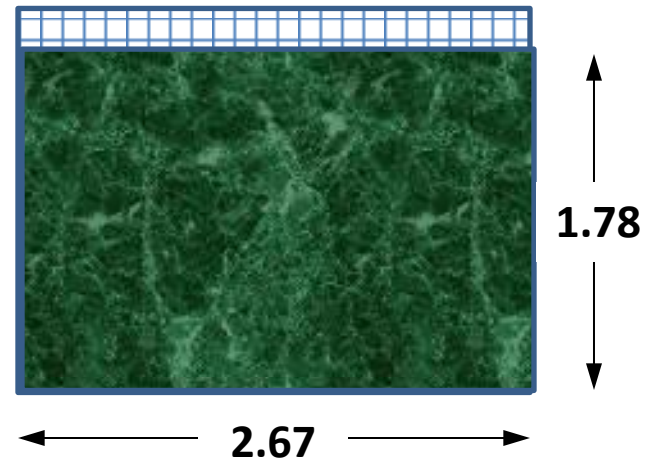


**4:3 Landscape picture
taken on 3:2 sensor**



Uses 89% of sensor (17.8 Mpx)

**3:2 Landscape picture
taken on 4:3 sensor**



Uses 89% of sensor (17.8 Mpx)

Camera Types and Sensor Aspect Ratios

Sensor Type		Sensor size [mm]	Crop Factor*	Sensor Aspect Ratio**	Pixel size [µm] (20MPx)	Main Camera Type	Sensor Utilization	
Main Name	Alternate Name						3:2 Landscape Picture	4:3 Landscape Picture
35mm	Full frame	36x24	1	3:2	6.5	DSLR/ILC High end	100%	89%
APS-C	Crop sensor	23.6x15.7	1.5	3:2	4.3	DSLR/ILC Low-High end	100%	89%
Four Thirds		17.3x13	2.1	4:3	3.1	DSLR/ILC Low-High end	89%	100%
1" sensor	CX	13.2x8.8	2.7	3:2	2.4	High quality compact	100%	89%
1/1.7		7.6x5.7	4.7	4:3	1.4	Point & shoot	89%	100%
1/2.3		5.7x4.3	6.2	4:3	1.2	Point & shoot, Bridge	89%	100%
1/3.2		4.5x3.4	8	4:3	0.8	High end phones	89%	100%

* Difference in linear size of sensor (and pixels also, for equal # of pixels); also useful in finding full frame equivalent focal length

** Width:Height

- Losing a few pixels is not a big deal
- Set the camera to take the pictures you want at the aspect ratio of your choice, at Max Resolution
- If you are using mats to frame your printed pictures, you may want (need?) to standardize on an aspect ratio, which gives you the opportunity to buy mats in bulk at a great savings