

# ASPECT RATIO

An aspect ratio is the proportion of an object's **width to its height**, most commonly written as **W: H**, with **W** representing simplified units of **width** and **H** representing simplified units of **height**. Aspect ratios may also be written as **N:1**, where **N = W/H**.

## “ Common Aspect Ratios in Use

a 4:3 aspect ratio can also be written as 1.33:1

a 16:9 aspect ratio can also be written as 1.78:1

a 16:10 aspect ratio can also be written as 1.6:1

a 21:9 aspect ratio can also be written as 2.33:1

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Aspect ratios are most commonly used for digital images, videos, or display screens. The primary unit of measurement for aspect ratios is pixels.

## How to Calculate Aspect Ratio

Aspect ratio Formula

The formula for finding the aspect ratio is: **AR=W/H**

Where

- **AR** is the aspect ratio
- **W** is the width of the displayed image
- **H** is the height of the displayed image

Note that W and H are measured in inches or millimeters.

**Example-1:** Resolution 640 x 480 (VGA)

$$=640/480$$

$$=1.33:1 \text{ or } 4:3$$

Example-2: Resolution 1024 x 768 (XGA)

$$=1024/768$$

$$=1.33:1 \text{ or } 4:3$$

Example-3: Resolution 1920 x 1080 (FHD)

$$=1920/1080$$

$$=1.78:1 \text{ or } 16:9$$

Example-4: Resolution 3840 x 2160 (4K)

$$=3840/2160$$

$$=1.78:1 \text{ or } 16:9$$

Example-5: Resolution 1280 x 800

$$=1280/800$$

$$=1.6:1 \text{ or } 16:10$$

Example-6: Resolution 1920 x 1200

$$=1920/1200$$

$$=1.6:1 \text{ or } 16:10$$

Example-7: Resolution 2560 x 1080

$$=2560/1080$$

$$=2.37:1 \text{ or } 21:9$$

Example-8: Resolution 3440 x 1440

$$=3440/1440$$

$$=2.38:1 \text{ or } 21:9$$

## Aspect Ratio 4:3



**Old TVs,  
photography**

### Popular 4:3 Resolutions

- 160 x 120 (QQVGA)
- 320 x 240 (QVGA)
- 640 x 480 (VGA)
- 800 x 600 (SVGA)
- 1024 x 768 (XGA)
- 1152 x 864 (XGA+)
- 2048 x 1536 (QXGA)
- 3200 x 2400 (QUXGA)
- 4096 x 3072 (HXGA)
- 6400 x 4800 (HUXGA)

## Aspect Ratio 16:9



16:9

TV & videos

### Top 16:9 Resolutions

- 640 x 360 (nHD)
- 854 x 480 (FWVGA)
- 960 x 540 (qHD)
- 1024 x 576 (WSVGA)
- 1280 x 720 (HD/WXGA)
- 1366 x 768 (FWXGA)
- 1600 x 900 (HD+)
- 1920 x 1080 (FHD)
- 2048 x 1152 (QWXGA)
- 2560 x 1440 (QHD)
- 3200 x 1800 (WQXGA+)
- 3840 x 2160 (UHD)
- 5120 x 2880 (UHD+)
- 7680 x 4320 (FUHD)
- 15360 x 8640 (QUHD)
- 30720 x 17280 (HHD)
- 61440 x 34560 (FHHD)
- 122880 x 69120 (QHHD)

