## Image Resizing

- If you have a $16 \times 24$ image, can you resize it to $4 \times 6$ without distortion?
Is this proportional?

Set up
proportion:

$$
\frac{16}{24}=\frac{4}{6}
$$

Solve:

$$
\begin{aligned}
16 \times 6 & =24 \times 4 \\
96 & =96
\end{aligned}
$$

It is proportional, so there won' t be distortion

- You have an $8 \times 10$ image. Name 3 other sets of dimensions you can resize this image to without distorting the image.
- (hint: think of equivalent fractions)

Examples: 4x5, 16x 20, 24x30

- You have a rectangular image with dimensions of $18 \times 27$, and you have a $9 \times 9$ piece of photo paper on which to print your image. You want to make the image as large as possible. What will your new dimensions after resizing be?

Write a proportion: $\quad \frac{18}{27}=\frac{h}{9}$
Solve:

$$
\begin{aligned}
18 \times 9 & =27 \times h \\
162 & =27 h \\
6 & =h
\end{aligned}
$$

The largest image would be $6 \times 9$

