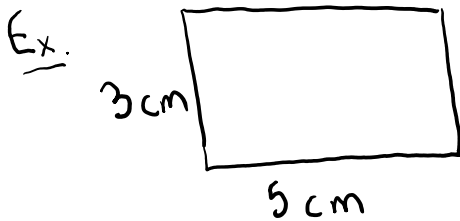


Proportions - A part, a share or number compared to another part or a whole

Proportional says that two fractions or ratios are equal



The proportions are 3:5 or $\frac{3}{5}$



You could say these rectangles are proportional because

$$\frac{1.5}{2.5} = \frac{3}{5}$$

When talking about proportional shapes/objects we need to understand equivalent fractions

Ex. $\frac{2}{7} = \frac{x}{21}$

Red annotations: an arrow labeled 'x3' points from the numerator 2 to x, and another arrow labeled 'x3' points from the denominator 7 to 21.

$x = 6$

Ex. $\frac{4}{13} = \frac{11}{m}$

Red annotations: a red 'x' is written between the two fractions, and a red arrow points from the denominator 13 to the denominator m.

$$\frac{13 \times 11}{4} = 35.75$$

$m = 35.75$

$$\text{Ex. } \frac{6}{15} = \frac{b}{7}$$

$$\frac{6 \times 7}{15} = 2.8$$

$$b = 2.8$$

$$\text{Ex. } \frac{307}{y} = \frac{2.1}{75}$$

$$\frac{307 \times 75}{2.1} = 10\,964.3$$

$$y = 10\,964.3$$