

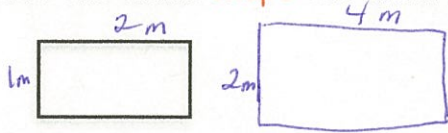
Name: _____

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Similar Figures

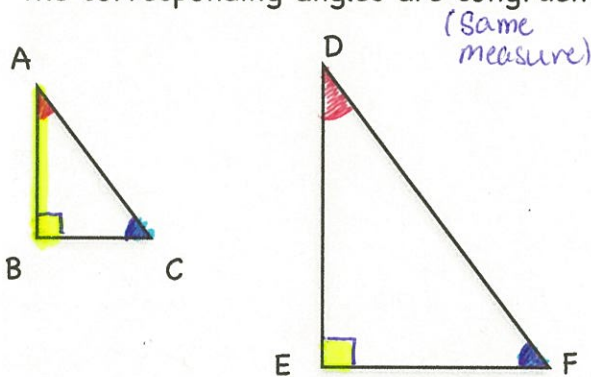
Characteristics:

- Have the **same shape** but different **size**.



Two polygons are similar when:

1. the corresponding angles are congruent (\cong)



Corresponding Angles

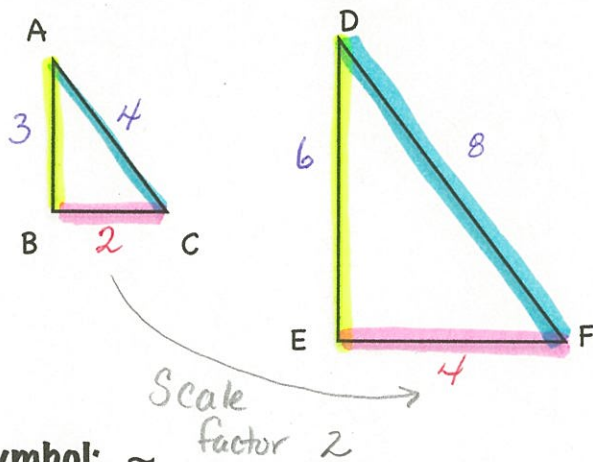
$$\angle A \cong \angle D$$

$$\angle B \cong \angle E$$

$$\angle C \cong \angle F$$

2. the corresponding sides are proportional

- their lengths have the same ratio. The scale factor is called the similarity ratio.



Proportional Sides

$$\frac{DE}{AB} = \frac{EF}{BC} = \frac{DF}{AC}$$

$$\frac{6}{3} = \frac{4}{2} = \frac{8}{4}$$

$$2 = 2 = 2$$

Symbol: \sim factor 2

$$\triangle ABC \sim \triangle DEF$$

You can use proportions to find missing side lengths in Similar Figures.