

SIMILARITY

* What does it mean to be similar?

Two polygons are similar if and only if corresponding angles are congruent and corresponding sides are proportional.

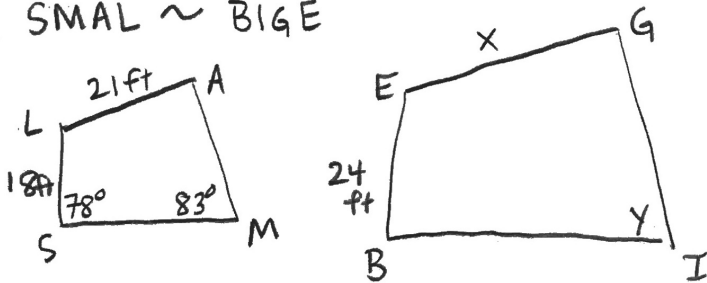
Dilation of a Polygon Conjecture: If one polygon is the dilated image of another polygon, then the polygons are similar.

* Why? Corresponding \angle 's are congruent, and sides change by a scale factor

Dilations of Circles: All circles are similar

\sim We use this symbol to show similarity.

Ex. $SMAL \sim BIGE$



Find x and y.

Corr. Sides are proportional

$$\frac{18 \text{ ft}}{24 \text{ ft}} = \frac{21 \text{ ft}}{x} \Rightarrow (21)(24) = 18x \Rightarrow \boxed{x = 28 \text{ ft}}$$

Corr. angles are congruent

$$\angle M \text{ corresponds with } \angle I, \text{ so } \boxed{y = 83^\circ}$$

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