sGeometry
Ch. 8&9A Lesson #1: Similar Polygons

Name: _____
Period: _____

Algebra Review Solving Proportions

If $\frac{a}{b}=\frac{c}{d}$ then $a \bullet d = b \bullet c$	Check: $\frac{2}{3}=\frac{4}{6}$	Solve: $\frac{x}{8}=\frac{9}{12}$	Solve: $\frac{5}{x+3}=\frac{2}{5}$

Core Concept Similar Polygons

Definition: Similar Figures: Two figures are _____ if the have the same _____ but different _____.

Similarity Postulate: Two polygons are similar if and only if …

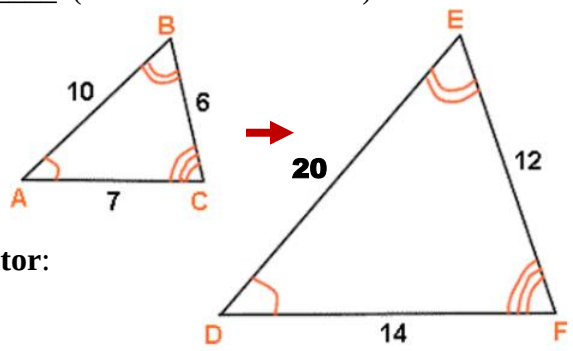
- Corresponding _____ are _____.
- Corresponding _____ are _____. (same ratio)

Similarity Statements: △_____ ~ △_____ (the order of letters matters)

Angles: $\angle A \cong \angle D$, _____, _____

Sides: $\frac{DE}{AB} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

Scale Factor:



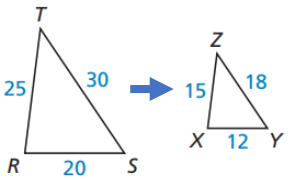
Examples:

In the diagram, $\triangle RST \sim \triangle XYZ$.

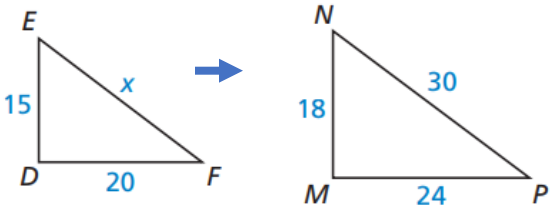
a. Find the scale factor from $\triangle RST$ to $\triangle XYZ$.

b. List all pairs of congruent angles.

c. Write the ratios of the corresponding side lengths in a *statement of proportionality.*



$\triangle DEF \sim \triangle MNP$. Find the value of x.



Scale Factor: