Similar Triangles and Similar Figures (Section 10.4)

Two Similar Figures

Two Similar Triangles

Solving Proportions
a. \( \frac{3}{4} = \frac{5}{x} \)

b. \( \frac{x}{x+3} = \frac{2}{3} \)
Examples: Solve for $x$.

1.

2.

3.

4.
Properties of Proportions
Consider the following triangle.

Theorems
- If a line parallel to one side of a triangle intersects the other sides, then it divides those sides into proportional segments.
- If a line divides two sides of a triangle into proportional segments, then the line is parallel to the third side.

Homework: