Similar Right Triangles and Proportion

We have seen that when two triangles are similar, or one is a dilation of another by a certain scale or ratio, they will both have angles with the same measure, and that the corresponding side lengths will all have the same ratio or scale by which they relate.

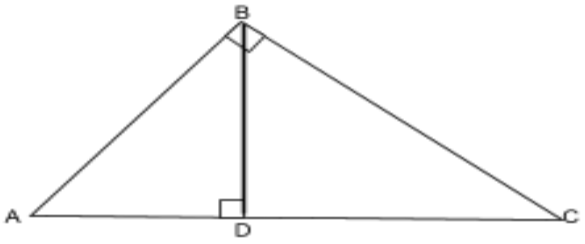
Do you think the same thing could be true for right triangles? How would we check this? Show your work below.

Which sides are corresponding? Create a ratio for the corresponding sides of the triangles.

What do you notice about the ratios?

Does this remain true if you reflect, rotate or translate either of the triangles?

For the next problems use the triangle at the right.



How many right triangles are there?

Are there angles in the triangles that are congruent, other than the right angles?

Which triangles are similar? Name them by corresponding parts.

Ex: $\Delta ABC \sim \Delta$_____

Identify all the corresponding parts of the similar triangles. **Make sure you have them all.**

Create a ratio for the corresponding sides of the similar triangles.

What do you notice about the ratios?

Create proportions that model the relationships that are occurring in the similar triangles.

Are there any surprises or Ah Ha's?