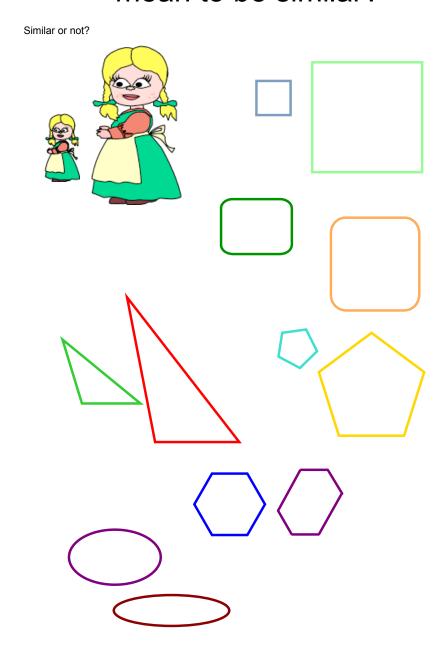
## 12.4 Similarity

## What does it mean to be similar?



## True or False?

All squares are similar to each other.

All isosceles triangles are similar to each other.

All Pentagons with congruent angles are similar to each other.

All rectangles are similar to each other.

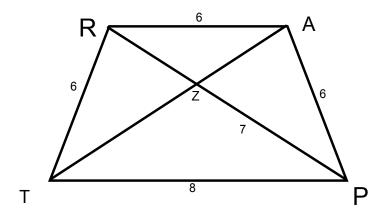
All isosceles trapezoids are similar to each other.

All regular hexagons are similar to each other.

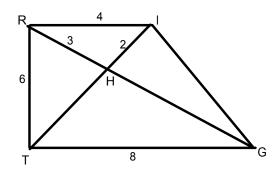
All circles are similar to each other.

All rhombi are similar to each other.

Are there any similar triangles in this Isosceles trapezoid?



What about this right trapezoid?

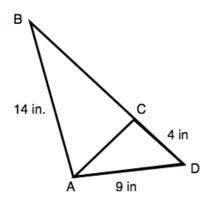


Similarity Theorems

AA

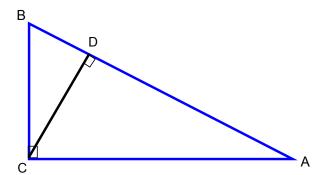
SSS

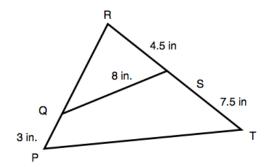
SAS



In the ABOVE figure, if angle ABC is congruent to angle CAD, how long is BC?

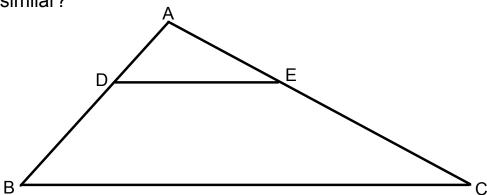
How many similar triangles are there in this picture?





In the  $\ \ \$  ABOVE  $\ \ \$  figure, if angle RSQ is congruent to angle RPT, how long are RQ and PT?

1. If we know segment DE is parallel to segment BC, are triangles ADE and ACB similar?



2. If we know triangles ADE and ACB are similar, is segment DE parallel to segment BC?

