

NAME:

Similarity & Right Triangle

6.5

Period:

Trigonometry

Ready, Set, Go!

Ready

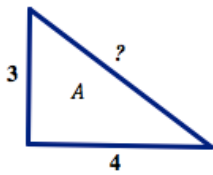
Topic: Pythagorean Theorem and ratios of similar triangles

Find the missing side in each right triangle. Triangles are not drawn to scale.

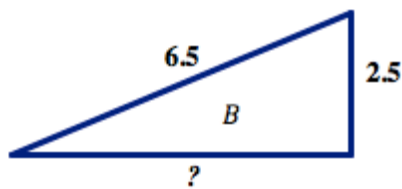


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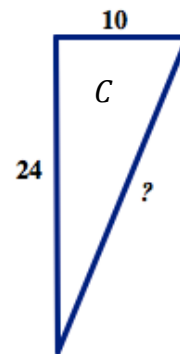
1.



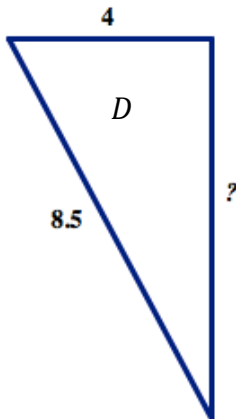
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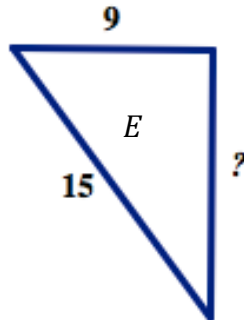
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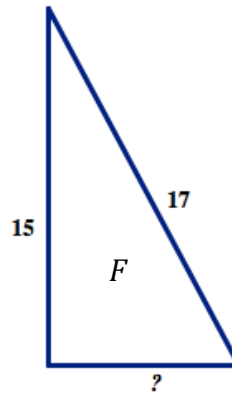
4.



5.



6.



7. Based on ratios between side lengths, which of the right triangles above are mathematically similar to each other? Provide the letters of the triangles and the ratios.



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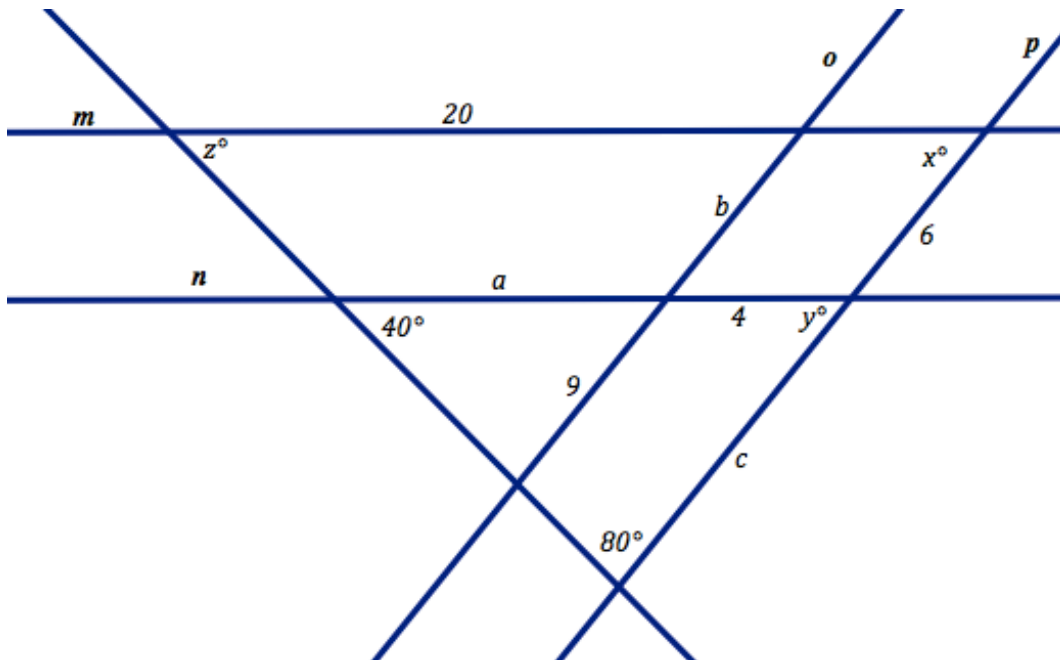
Trigonometry

Set

Topic: Using parallel lines, and angle relationships to find missing values.

In each of the diagrams use the given information provided to find the missing lengths and angle measurements.

8. Line $m \parallel n$ and $o \parallel p$, find the values of angles x, y and z . Also, find the lengths of a, b and c .



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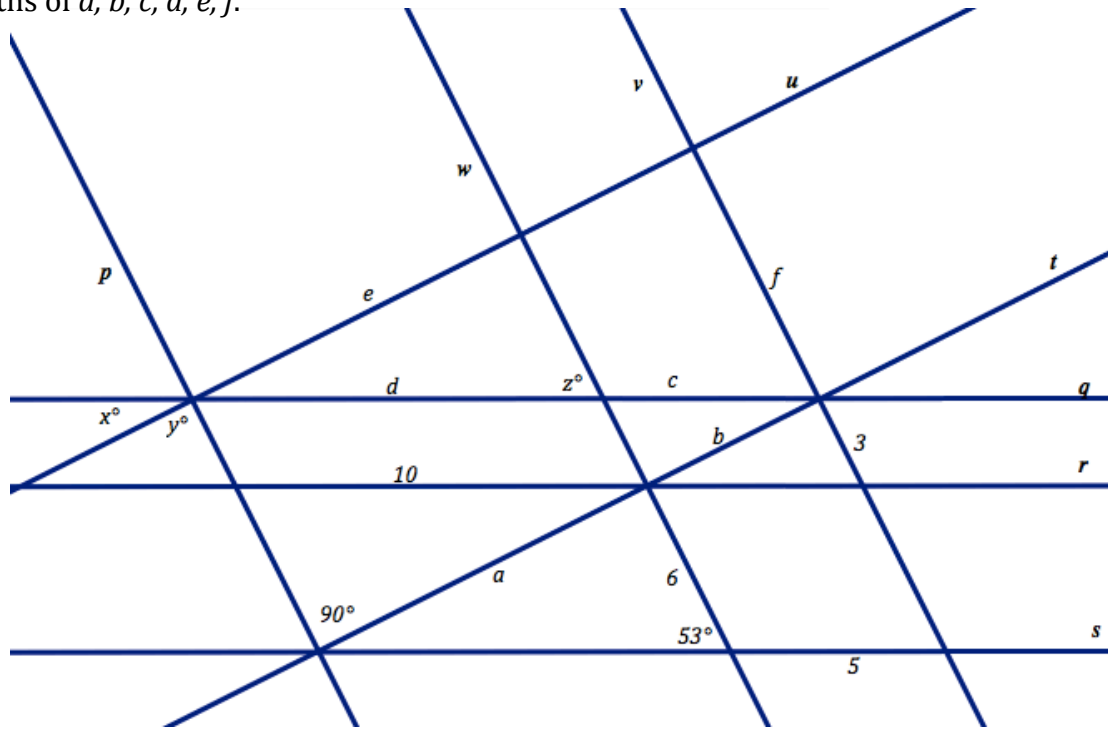
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9. Line $q \parallel r \parallel s$ and $t \parallel u$ and $p \parallel w \parallel v$, find the values of angles x , y and z . Also, find the lengths of a , b , c , d , e , f .



Go

Topic: Solve equations including those including proportions

Solve each equation below.

10.

$$3x - 5 = 2x + 7$$

11.

$$\frac{5}{7} = \frac{x}{21}$$

12.

$$\frac{3}{x} = \frac{18}{5x + 2}$$

13.

$$\frac{1}{2}x - 7 = \frac{3}{4}x - 8$$

14.

$$17 + 3(x - 5) = 2(x + 3)$$

15.

$$\frac{x + 5}{6} = \frac{3(x + 2)}{9}$$

16.

$$x + 2 + 3x - 8 = 90$$

17.

$$\frac{5}{12} = \frac{x}{8}$$

18.

$$\frac{4}{5} = \frac{x + 2}{15}$$

