



8-3 Solve It!




Here are ratios in triangles once again! This must be "similar" to something you've seen before.

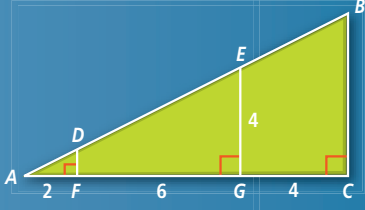


Solve It!

Getting Ready!

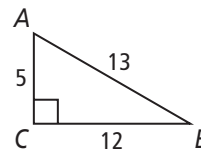


What is the ratio of the length of the shorter leg to the length of the hypotenuse for each of $\triangle ADF$, $\triangle AEG$, and $\triangle ABC$? Make a conjecture based on your results.

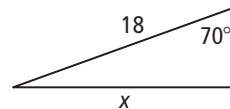


8-3 Lesson Quiz

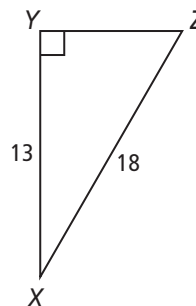
1. What are the sine, cosine, and tangent ratios for $\angle B$?



2. What is the value of x ? Round to the nearest tenth.



3. What is $m\angle X$ to the nearest degree?



4. Do you UNDERSTAND? Can a sine be greater than 1? Explain.

Answers

Solve It!

$\frac{\sqrt{5}}{5}$, $\frac{\sqrt{5}}{5}$, $\frac{\sqrt{5}}{5}$; the ratio does not change for similar \triangle .

Lesson Quiz

1. $\sin B = \frac{5}{13}$, $\cos B = \frac{12}{13}$,
 $\tan B = \frac{5}{12}$

2. 16.9

3. 44

4. No; a leg of a right triangle cannot be longer than the hypotenuse.