

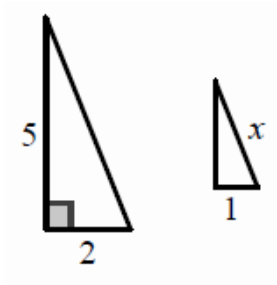
Questions on test review? We will take our test in 10 minutes...get ready, grab a calculator, turn your desks into rows, get out your index card...

SECONDARY MATH II
Module 6 Study Guide: Similarity & Right Triangle Trigonometry

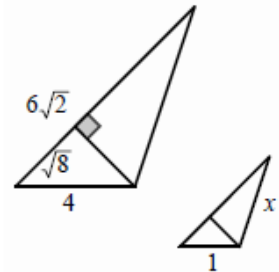
Directions: Show ALL work. Round any decimals to one decimal place, unless otherwise stated.

For 1-3: Find the missing side for the similar shapes that are shown below.

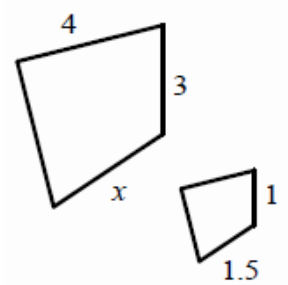
1.



2.

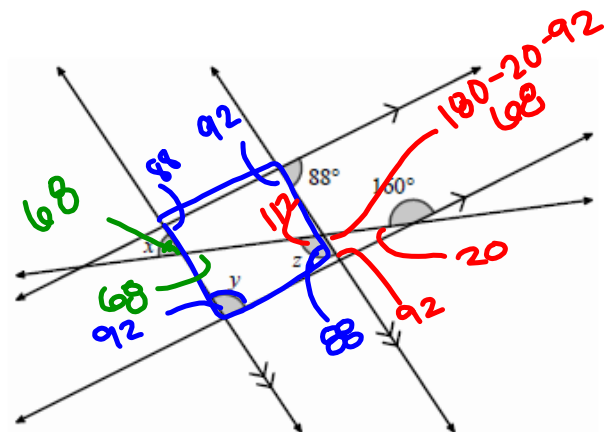


3.



4. Find the measurements of angles x , y , z .

$y = 92$
 $z = 112$
 $x = 68$



5. Find the measure of all of the angles for the quadrilateral below, given $\triangle ABC$ to the right.

$\sin A =$

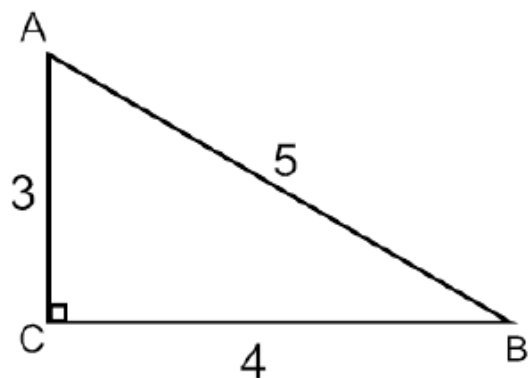
$\cos A =$

$\tan A =$

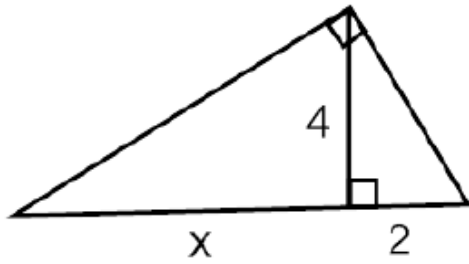
$\sin B =$

$\cos B =$

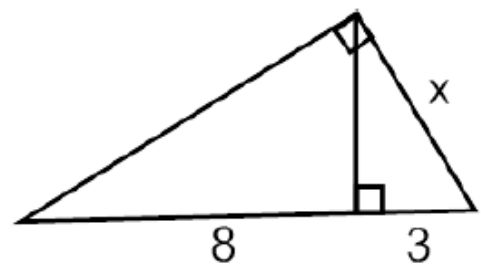
$\tan B =$



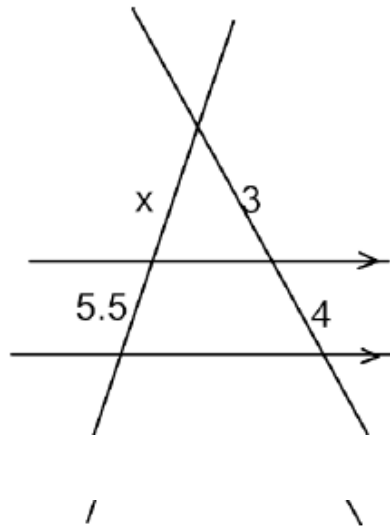
6. Set up a proportion and solve for x .



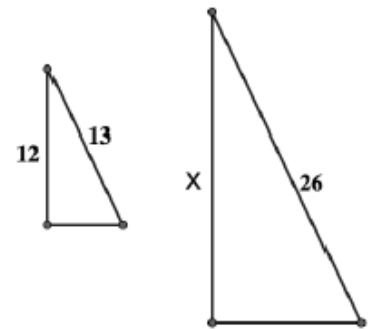
7. Set up a proportion and solve for x .



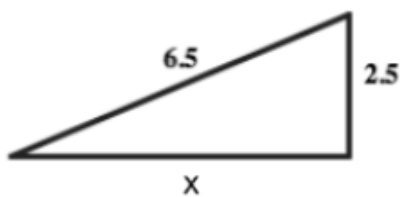
8. Set up a proportion and solve for x .



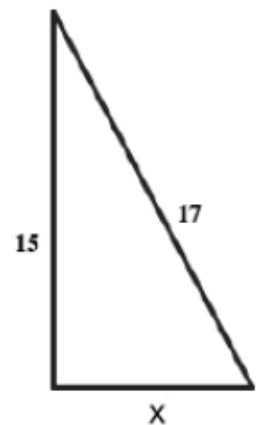
9. Set up a proportion and solve for x .



10. Find the missing side length, x .



11. Find the missing side length, x .



12. Find the coordinates of the midpoint, M , of a line segment between $(0,6)$ and $(8,2)$.

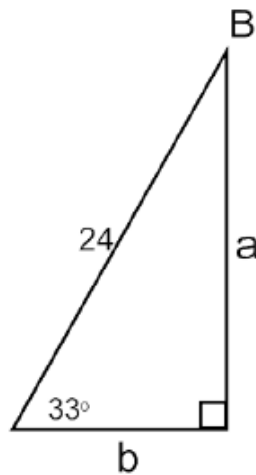
13. Find the coordinates of the midpoint, M , of a line segment between $(-4,5)$ and $(3,-6)$.

14. Find all missing side lengths and angle measures.

$m\angle B =$

$a =$

$b =$

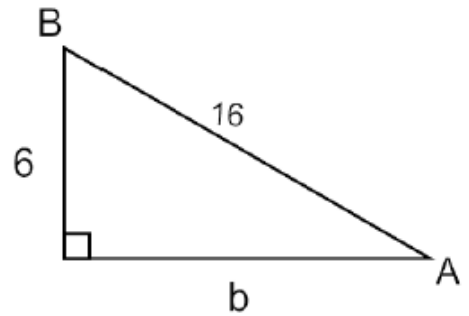


15. Find all missing side lengths and angle measures.

$m\angle A =$

$m\angle B =$

$b =$



Find the missing angle or side length given the trigonometric ratio below.

16. $\sin B = 0.67$

17. $\cos(53^\circ) = \frac{x}{6}$

18. $\tan A = 1.2$

For the following, draw a picture, set up a trig ratio, and solve for the missing angle or side length.

19. John places a 12 foot ladder against the side of a building. If the ladder makes an angle of elevation with the ground of 62° , how far up the side of the building is the ladder?

20. In southern Utah, there is a 10 mile stretch of I-15 that increases 1.6 miles. What is the angle of elevation?