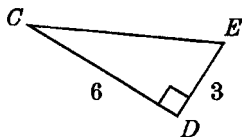


Study your notes & homeworks from this unit! Give all answers as simplified fractions or in simplified radical form, unless otherwise noted.

1.1 Right Triangle Trig

1. Using $\triangle CED$, find the values of the six trig functions for $\angle C$:



2. If $\sin \theta = \frac{5}{13}$, find $\cos \theta$.

3. If $\tan \theta = \frac{3}{4}$, find $\sin \theta$.

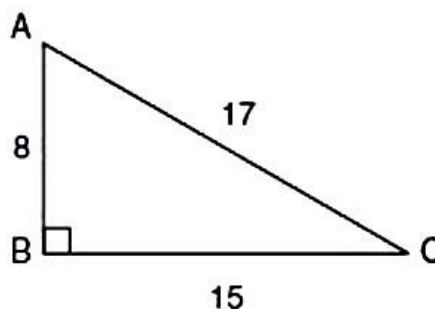
For problems 4-7, use the diagram of $\triangle ABC$ to fill in the missing angle letter:

4. $\sin \angle \text{---} = \frac{15}{17}$

5. $\csc \angle \text{---} = \frac{17}{8}$

6. $\cot \angle \text{---} = \frac{15}{8}$

7. $\sec \angle \text{---} = \frac{17}{15}$

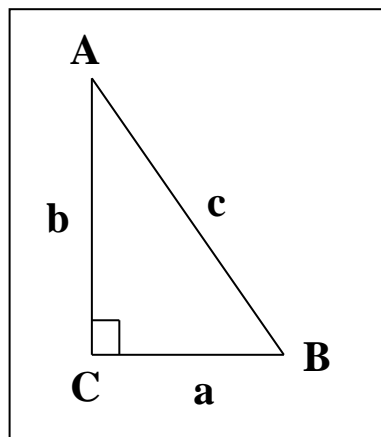


1.2 Solving Right Triangles

Find all missing side lengths & angle measures.

8. $a = 3$, $m\angle B = 37^\circ$

9. $b = 12$, $c = 17$



1.3 Trig Applications

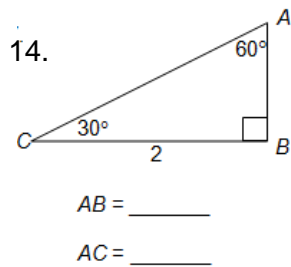
10. A boy flying a kite lets out 300 feet of string which makes an angle of 38° with the ground. Assuming that the string is straight, how high above the ground is the kite?

11. A 25 foot ladder leans against a building. The ladder's base is 13.5 feet from the building. Find the angle which the ladder makes with the ground.

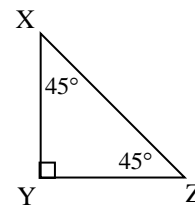
12. A nursery plants a new tree and attaches a guy wire to help support the tree while its roots take hold. An eight foot wire is attached to the tree and to a stake in the ground. From the stake in the ground the angle of elevation of the connection with the tree is 42° . Find to the *nearest tenth of a foot*, the height of the connection point on the tree.

13. From the top of a fire tower, a forest ranger sees his partner on the ground at an angle of depression of 40° . If the tower is 45 feet in height, how far is the partner from the base of the tower, to the *nearest tenth of a foot*?

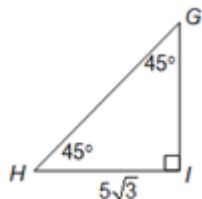
1.4 Special Right triangles



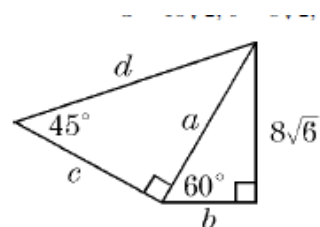
18. If $XZ = 5$, find YZ .



15. Find GH .



19. Find a , b , c , and d .



16. If $ST = 9\sqrt{3}$, find the length of SR and RT .

