

Name: _____

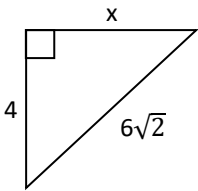
Unit 6 Common Assessment: Right Triangles & Trig REMOTE LEARNING 2020 - VERSION 1

Show all your work and write your answers on the line provided.

1. Given the legs of a right triangle measure 5 cm and 12 cm, find the length of the hypotenuse.

HYPOTENUSE = _____

2. Solve for the value of x . Leave the answer in simplest radical form. (NO DECIMALS!)

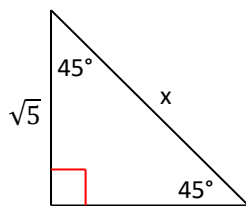


$x =$ _____

3. In rectangle ABCD, $AD = 6$ cm and $DC = 8$ cm. Find the length of the diagonal, $\overline{AC}$.

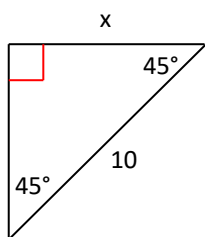
$AC =$ _____

4. Solve for x:



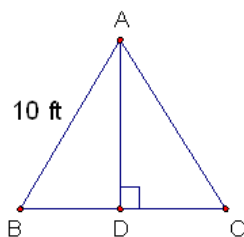
X = _____

5. Solve for x:



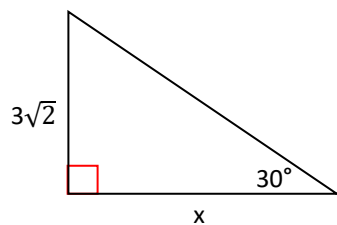
X = _____

6. In equilateral triangle below, $AB = 10$ feet. How long is the height, $\overline{AD}$? Leave the answer in simplest radical form. (NO DECIMALS!)



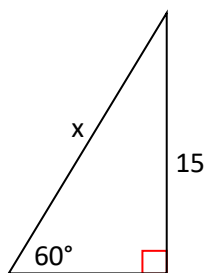
AD = _____

7. Solve for x:



X = _____

8. Solve for x:



X = _____

9. If A is the measure of an angle and $\sin A = \frac{12}{13}$, then find $\cos A$.

cos A = _____

For questions #10- 11, decide whether the given numbers represent the sides lengths of a triangle. If they can, classify the triangle. Show your work and explain!!!

10. 4, 6, 10

Can it make a triangle? (Circle one) YES / NO

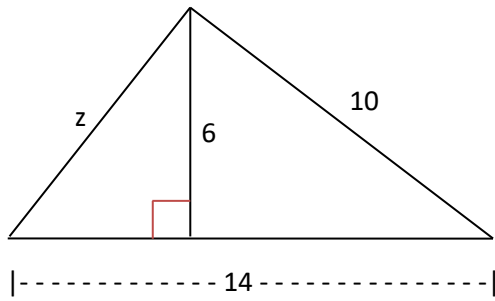
If you circled "YES", classify the triangle: _____

11. $2\sqrt{3}$, 6, $4\sqrt{3}$

Can it make a triangle? (Circle one) YES / NO

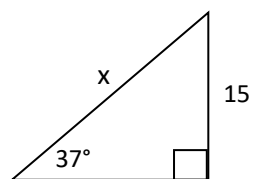
If you circled "YES", classify the triangle: _____

12. Solve for the value of z . Leave answer in simplest radical form (NO DECIMALS!!!!.)



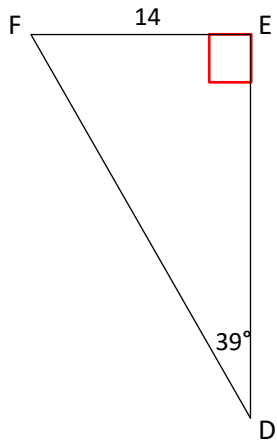
$z =$ _____

13. Find x . Round to the nearest tenth.



$x =$ _____

14. Solve the right triangle below. Round your answers to the nearest tenth.

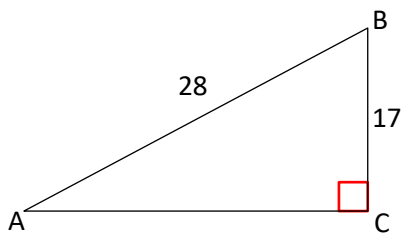


DF = _____

ED = _____

$m\angle F =$ _____

15. Solve the right triangle below. Round your answers to the nearest tenth.



AC = _____

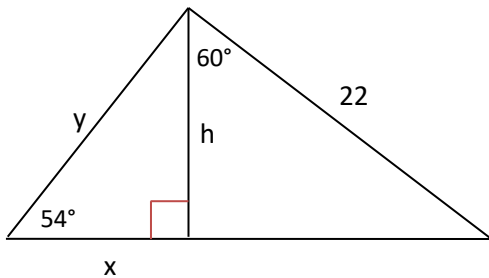
$m\angle A =$ _____

$m\angle B =$ _____

16. You are trying to measure the height of a Maple tree. You are standing 35 feet away from the base of the tree and you measure the angle of elevation, from a point on the ground to the top of the tree, to be 56° . Find the height of the tree, round to the nearest tenth.

Height of the tree = _____

17. Find the value of the variables, round your answer to the nearest tenth.

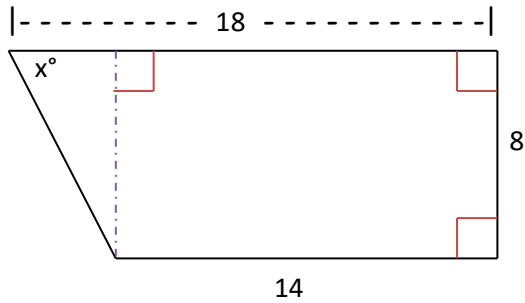


$h =$ _____

$x =$ _____

$y =$ _____

18. Find the measure of x° , if necessary round to the nearest tenth.



$x^\circ =$ _____

19. The length of a wheelchair ramp is 12 feet, and the vertical rise is 2 feet. Draw a diagram and estimate the angle the ramp makes with the ground. Round to the nearest tenth.

Measure of angle = _____