

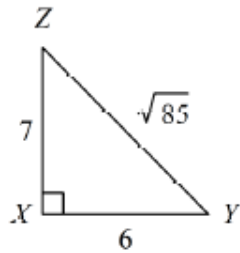
Right Triangle Trig Test Review #2

Name: _____

1.

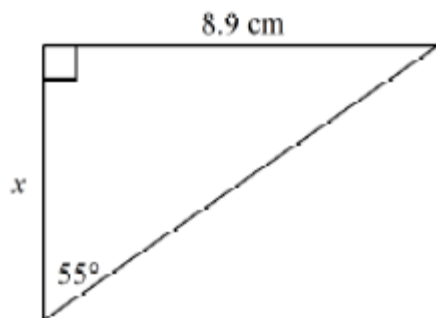
a)

Write the tangent ratios for $\angle Y$ and $\angle Z$.

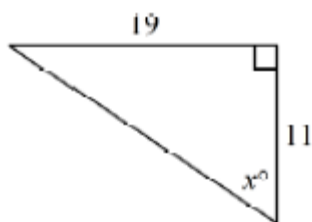


b) Find the measures of $\angle Y$ and $\angle Z$

2. Find the value of x . Round your answer to the nearest thousandth. Include units!

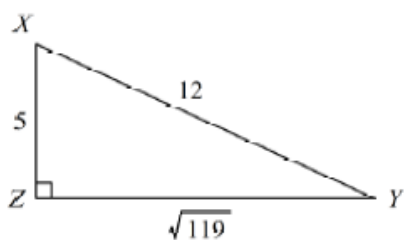


3. Find the value of x . Round your answer to the nearest thousandth.



4.

Write the ratios for $\sin X$ and $\cos X$.



5. In right $\triangle ACB$, $AC = 3$, $BC = 4$, and $AB = 5$. Draw a figure.

- A. Find the exact value of $\sin B$. _____
- B. Find the exact value of $\cos A$. _____
- C. Find the exact value of $\tan A$. _____
- D. Find measurement of $\angle A$ (to the nearest degree). _____

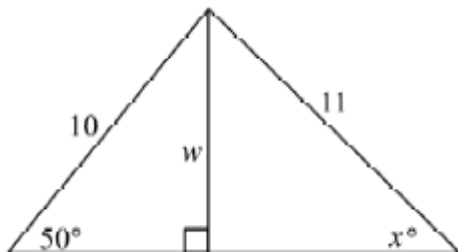
6. In right $\triangle ABC$, $\cos A = \frac{40}{41}$ and angle C is a right angle. Draw a figure.

- A. Find the exact value of $\sin A$. _____
- B. Find the exact value of $\cos B$. _____
- C. Find the exact value of $\tan A$. _____
- D. Find measurement of $\angle B$ (to the nearest degree). _____

7. In right $\triangle XYZ$, $\sin Z = \frac{24}{25}$ and angle Y is a right angle. Draw a figure.

- A. Find the exact value of $\sin X$. _____
- B. Find the exact value of $\cos Z$. _____
- C. Find the exact value of $\tan X$. _____
- D. Find measurement of $\angle X$ (to the nearest degree). _____

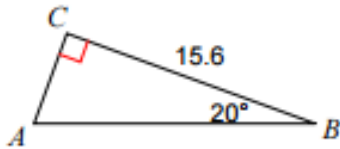
8. Find the value of w and then x . Round lengths to the nearest thousandth and angle measures to the nearest thousandth degree.



9. Viola drives 170 meters up a hill that makes an angle of 6° with the horizontal. To the nearest thousandth of a meter, what horizontal distance has she covered?

10. To approach the runway, a small plane must begin a 9° descent starting from a height of 1125 feet above the ground. To the nearest thousandth of a mile, how many miles from the runway is the airplane at the start of this approach?

11. Solve the following right triangle. Round decimals to the nearest thousandth

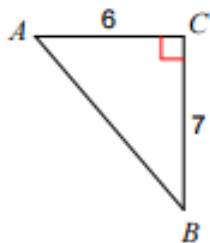


$$AB = \underline{\hspace{2cm}}$$

$$AC = \underline{\hspace{2cm}}$$

$$\angle A = \underline{\hspace{2cm}}$$

12. Solve the following right triangle. Round decimals to the nearest thousandth



$$\angle A = \underline{\hspace{2cm}}$$

$$\angle B = \underline{\hspace{2cm}}$$

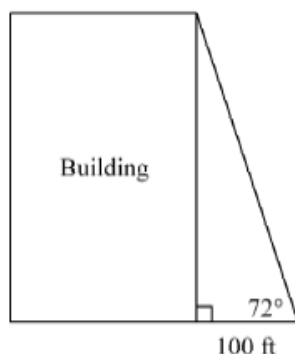
$$AB = \underline{\hspace{2cm}}$$

13.

A large totem pole in the state of Washington is 100 feet tall. At a particular time of day, the totem pole casts a 249-foot-long shadow. Find the measure of $\angle A$ to the nearest degree.

14.

The students in Mr. Collin's class used a surveyor's measuring device to find the angle from their location to the top of a building. They also measured their distance from the bottom of the building. The diagram shows the angle measure and the distance. To the nearest foot, find the height of the building.



15.

Find the angle of elevation of the sun from the ground to the top of a tree when a tree that is 10 yards tall casts a shadow 14 yards long. Round to the nearest degree.

16.

To find the height of a pole, a surveyor moves 140 feet away from the base of the pole and then, with a transit 4 feet tall, measures the angle of elevation to the top of the pole to be 44° . To the nearest foot, what is the height of the pole?

17.

An airplane pilot over the Pacific sights an atoll at an angle of depression of 5° . At this time, the horizontal distance from the airplane to the atoll is 4629 meters. What is the height of the plane to the nearest meter?