

Trigonometry Hand In Assignment

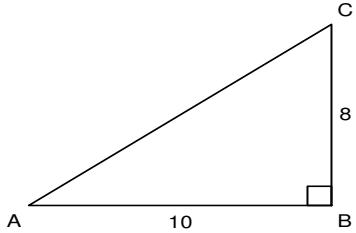
Name: _____

Total: _____/24

Please record answers on a separate sheet of paper. Round all answers to three decimal places unless otherwise specified.

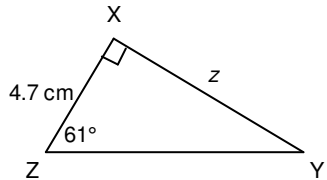
1. Determine the measures of $\angle A$ and $\angle C$.

/3



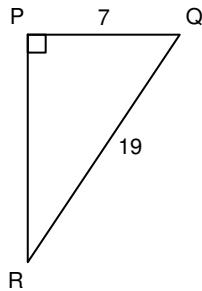
2. Determine the length of side z .

/2



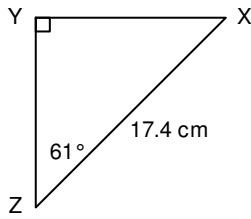
3. Determine the measure of $\angle Q$.

/2



4. Determine the length of XY.

/2

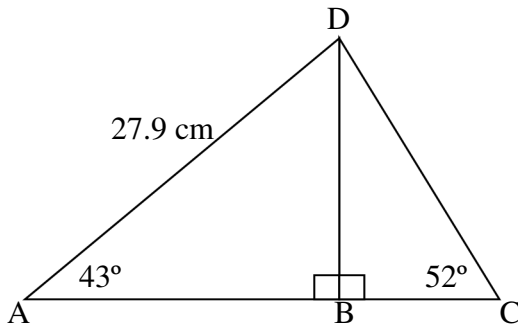


5. A surveyor held a clinometer 1.5 m above the ground from a point 60.0 m from the base of a tower. The angle between the horizontal and the line of sight to the top of the tower was 21° . Determine the height of the tower to the nearest tenth of a metre. Include a diagram in your answer.

/3

6. Given the diagram on the left below, determine the length of DC.

/4



7. A fire ranger is at the top of a 120 m observation tower. She observes smoke due east at an angle of depression of 6° and due west at an angle of depression of 3° . Determine the distance between these fires. Include a diagram in your answer.
8. The school flagpole is 14 m high. A student measures the angle of elevation of the top of the pole to be 31° . She then moves closer to the pole and finds the angle of elevation has increased to 48° . Determine the distance between her two points of measurement, x .

/4

