

# Precalculus Right Triangle Trigonometry Worksheet

Solve each problems. Round answer to the nearest thousandth

1. A 25 foot leaning against a shop make a 75 degree angle with the ground. How high up the shop does the ladder reach?

2. Jaggy is flying a kite. Her hand is 5 feet above the and is holding the end of a 270 foot long kite string which makes an angle of 65 degree with the horizontal. How high is the kite above the ground?

2. Firraz wants to construct a wheelchair with 125 degree inclined and a height of 5 feet. What will be the length of the wheel chair?

4. A swimmer is 210 meters below the surface of the ocean and begins to ascend at an angle of 25 degree from vertical. How far will the swimmer travel before he breaks the surface of a water?

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5. On a college, the auditorium is 50 yards due east of the yoga class and the library is due north of the auditorium. The college is building a sidewalk from the yoga class to the library. The sidewalk will be at an angle 56 degree with the current sidewalk between the auditorium and yoga class. How long will the sidewalk be ?

6. A rectangular tub is 56 feet wide. If the bottom of the tub is slanted so that the water depth is 4 feet shallow end and 13 feet at the deep end, What is the angle of elevation at the bottom of the tub?

7. A building 220 feet high cast a shadow that is 29 feet long. What is angle of elevation to the sun?

8. A stright trial with an incline of 15 degree leads from a hospital at an elevation of 6000 feet to a lake on top of a mountain at an elevation of 15,200 feet. What is the length of the trial?