

Right Triangle Trig Word Problems

Draw and label a diagram for each. Then set up a trig equation and solve, rounding final answer to 4 significant digits for lengths and to degrees/minutes/seconds rounded to the nearest whole number for angles.

1. From a location 23 feet from the base of a flagpole, the angle of elevation to its top is $37^{\circ}30'$. How tall is the flagpole?

2. A circus tightrope walker will slide to the ground from a platform 75 feet above the arena along a taut cable that is 92 feet long. At what angle is the cable from the horizontal?