# Trigonometry: Finding an Unknown Angle 

June 10, 2014

## Review: 4.06 Q14

A hot air balloon is anchored to the ground by a rope. When it drifts 20 m sideways, it makes an angle of $75^{\circ}$ with the ground. How long is the rope (to one decimal place)?

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\text { Angle }(\theta) \stackrel{\sin (\theta)}{\stackrel{\sin ^{-1}\left(\frac{a}{b}\right)}{\rightleftarrows}} \text { Ratio of sides }\left(\frac{a}{b}\right)
$$

