Unit 5: Triangle Trigonometry

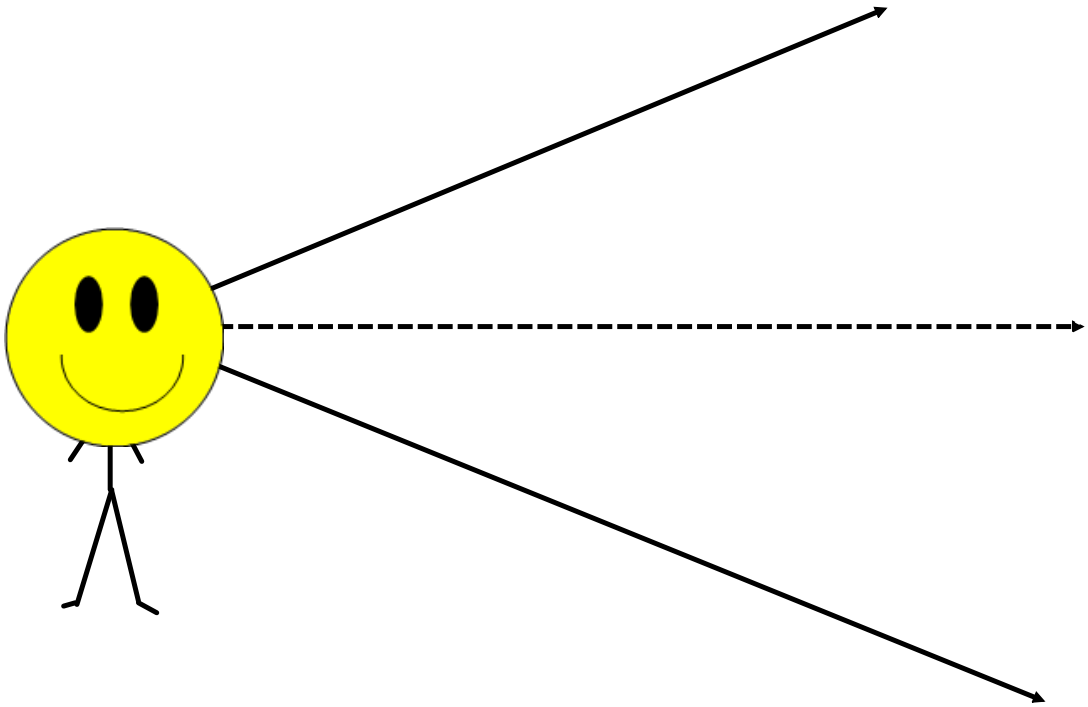
Day 3: Word Problems

Today we will...

1. Solve word problems that involve angles of elevation and angles of depression.

Applying the Primary Trigonometric Ratios

SOH CAH TOA



Example 1: A hot-air balloon rises from the ground. It is tethered with a 95 m rope. When the rope is taut, Xavier, who is in the basket, estimates the angle of depression to the rope to be 55^{o}.

a) Viewed from the ground where the tether is secured, what is the angle of elevation to the balloon?

b) How high is the balloon above the ground?

c) How far did the balloon drift horizontally?

Example 2: A wheelchair ramp is safe to use if it has a minimum slope of 1/12 and a maximum slope of 1/5. What are the minimum and maximum angles of elevation to the top of such a ramp?

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QUIZ NEXT CLASS.....

DAYS 1 - 3