

## Angles of Elevation and Depression

The **horizon** is a horizontal line.

The **angle of elevation** is the angle rising up from the horizon.

The **angle of depression** is the angle dropping down from the horizon.

Common pitfall: measuring the angle of elevation or depression from a vertical rather than a horizontal line.

Notes

## Solving Trigonometry Word Problems

Solving trig word problems is usually a three step process:

1. Draw a sketch. Label the information given. Label the quantity to be found with a variable.
2. Use the sketch to write an equation relating the known and wanted information.
3. Solve the equation. Check that your answer makes sense.

Notes

## Example

Joanna knows that when she stands 134 ft from the base of a flagpole, the angle of elevation to the top of the flagpole is  $27^{\circ}30'$ . If her eyes are 5.4ft from the ground, find the height of the flagpole.

Notes

## Example 2

A building is 41.29 ft tall. The shadow cast by the building is 46.83ft. Find the angle of elevation of the sun.

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