

8-5 - Angles of Elevation and Depression

CA Standards (18, 19); trig functions, solving triangles with trig

angle of elevation - angle "looking up"

angle of depression - angle "looking down"

Both angle of elevation and angle of depression are congruent due to AIAs.

Use a calculator and the chart on page 769, solve for the word problems given.

Watch the examples on the whiteboard before you attempt page 447 (1-15 and 29).

The two angles (depression and elevation) are congruent because of Alternate Interior Angles

Read the word problem carefully!

Make a diagram showing the correct angles in the correct places. Remember, you will use either **sin**, **cos** or **tan** to solve for the missing pieces of the right triangle. In this chapter, all of the triangles will be right triangles.

A meteorologist measures the angle of elevation of a weather balloon as 41 degrees. A radio signal from the balloon indicates that it is 1503 meters from his location. To the nearest meter, how high above the ground is the balloon?

Make a diagram!