

Monday, October 3rd

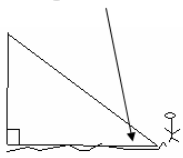
Show this video to start... "Gettin' TRIGGY with it!"

Click on the globe 



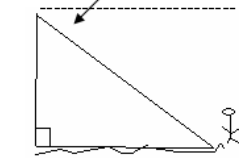
ANGLES OF ELEVATION/DEPRESSION

Angle of elevation - is the angle between the ground and the line of sight.
(angle of inclination)



Always from the GROUND up

Angle of Depression - is the angle between the horizon and the line of sight.



Always outside the triangle



Also, note that the angle of elevation = angle of depression

EXAMPLE 1:**Using Sine or Cosine to Solve a Problem**

A water bomber is flying at an altitude of 5000 ft. The plane's radar shows that it is 8000 ft. from the target site. What is the **angle of elevation** of the plane measured from the target site, to the nearest degree?

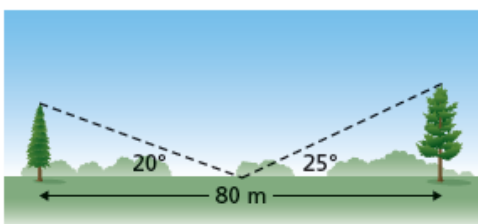
**SOLUTION**

(move box to show)



EXAMPLE #2:

Two trees are 80 m apart. From a point halfway between the trees, the angles of elevation of the tops of the trees are measured. What is the height of each tree to the nearest metre?

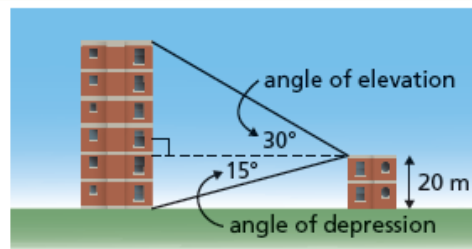


2.7 Solving Problems Involving More than One Right Triangle

EXAMPLE 3:

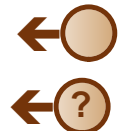
Solving a Problem with Triangles in the Same Plane

From the top of a 20-m high building, a surveyor measured the angle of elevation of the top of another building and the angle of depression of the base of that building. The surveyor sketched this plan of her measurements. Determine the height of the taller building to the nearest tenth of a metre.



SOLUTION

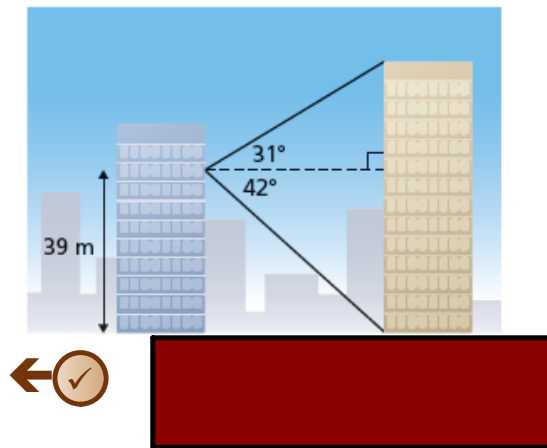
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CHECK YOUR UNDERSTANDING

YOUR TURN...

A surveyor stands at a window on the 9th floor of an office tower. He uses a clinometer to measure the angles of elevation and depression of the top and the base of a taller building. The surveyor sketches this plan of his measurements. Determine the height of the taller building to the nearest tenth of a metre.



2.7 Solving Problems Involving More than One Right Triangle

HOMEWORK...

Booklet Exercise 10.8: #1 - 6