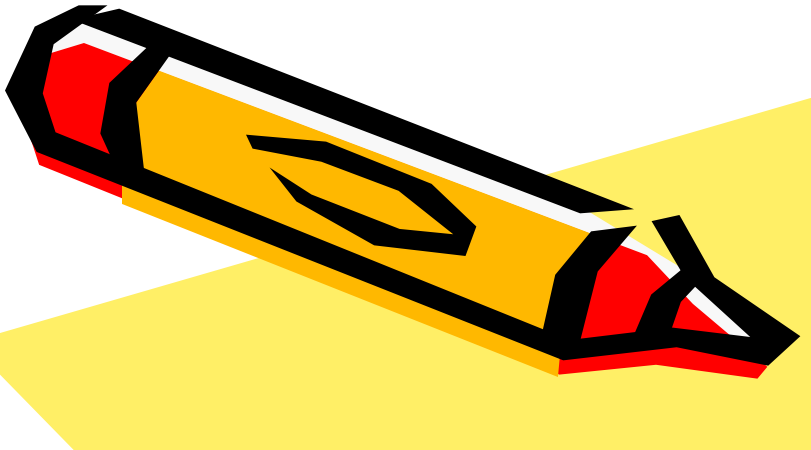
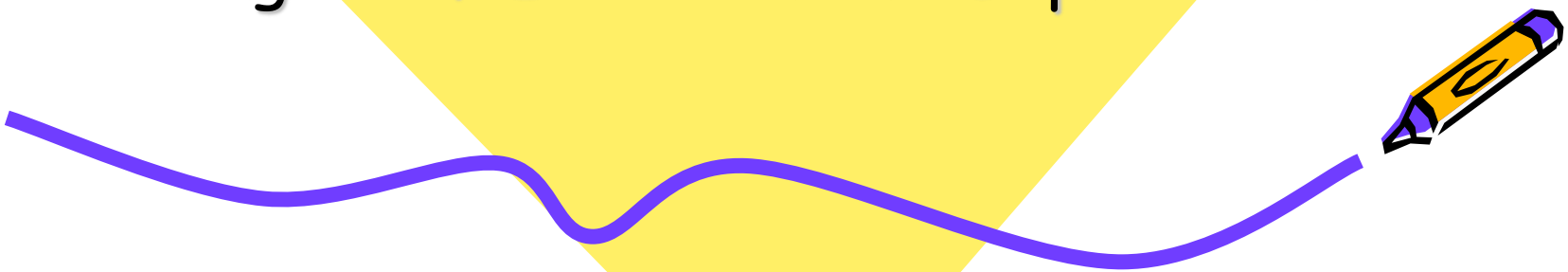


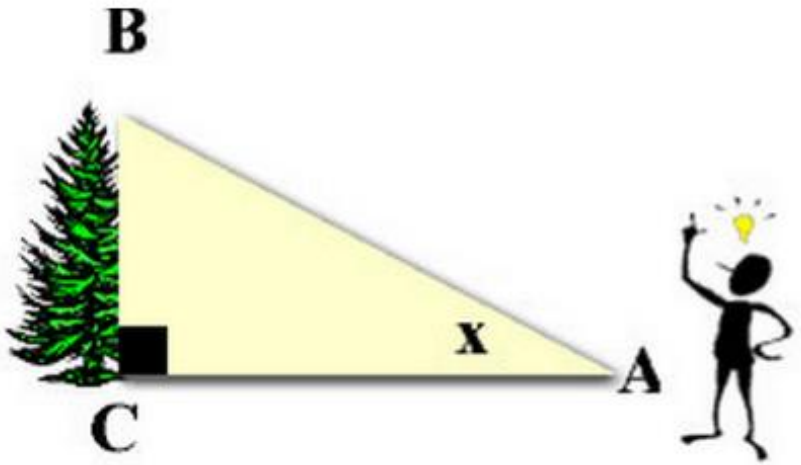
Geometry

Angles of Elevation and Depression



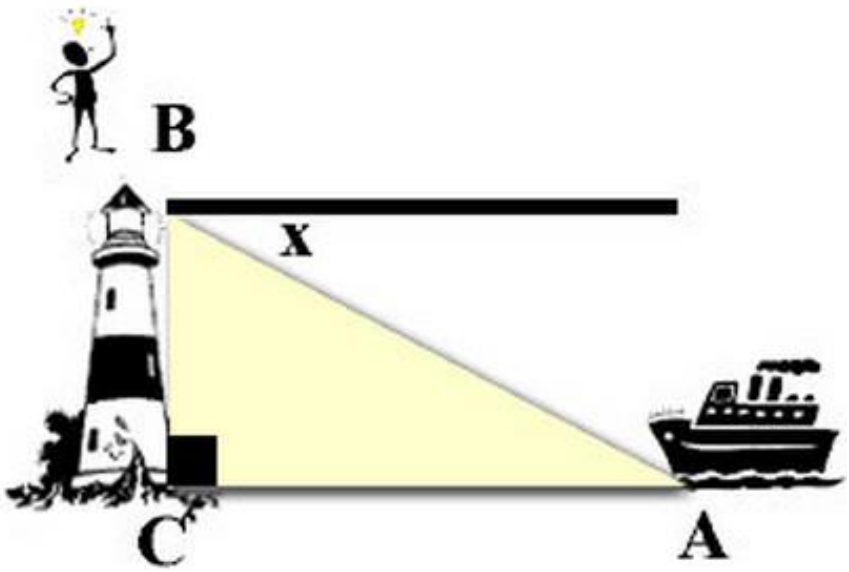
Angles of Elevation and Depression

The **angle of elevation** is always measured from the ground up. Think of it like an elevator that only goes up. It is always **INSIDE** the triangle.



Angles of Elevation and Depression

The **angle of depression** is always **OUTSIDE** the triangle. It is never inside the triangle. The **angle of depression** is measured down from the horizon line.

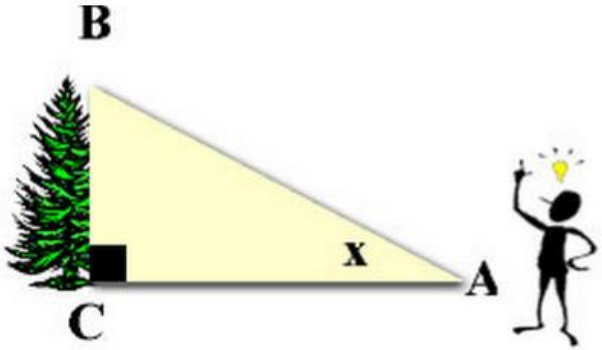


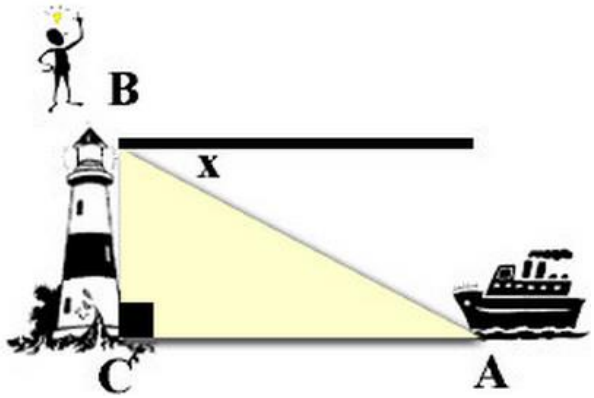
Angles of Elevation and Depression

The **angle of elevation** and the **angle of depression**, are a matter of perspective.

Things to notice:

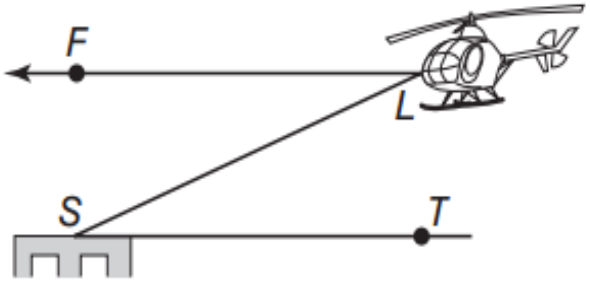
1. The horizon line is parallel to the ground
2. The **angle of depression** is Alternate Interior the **angle of elevation**.

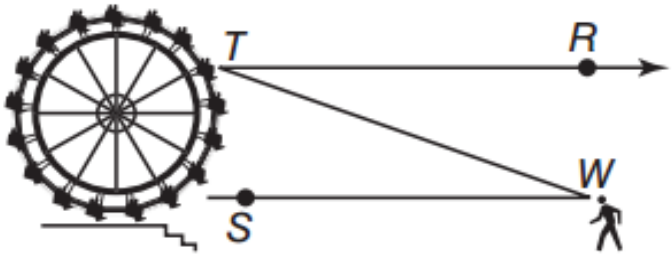




Angles of Elevation and Depression

Name the angles of elevation and depression in each figure.





Angle of elevation: _____

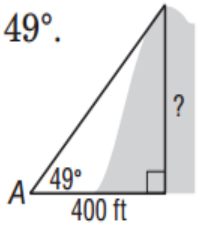
Angle of depression: _____

Angle of elevation: _____

Angle of depression: _____

Angles of Elevation and Depression

1. HILL TOP The angle of elevation from point A to the top of a hill is 49°. If point A is 400 feet from the base of the hill, how high is the hill?



2. SUN Find the angle of elevation of the Sun when a 12.5-meter-tall telephone pole casts an 18-meter-long shadow.