

**Main Ideas/
Questions**

How to setup word problems

Examples

Notes

1. Draw and label the triangle appropriately
 2. Setup the correct equation
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- A. A boy who is flying a kite lets out 230 feet of string which makes an angle of 52° with the ground. Assuming that the string is stretched taut, find how high the kite is above the ground to the nearest foot.

 - B. Find the angle which the sun's rays make with the ground when the flagpole is 40 feet high and casts a shadow 30 feet long.

 - C. An airplane ascends at an angle of 14° with the ground. Find to the nearest 100 feet the distance it has flown when it has covered a horizontal distance of 1500 feet.

 - D. In an equilateral triangle, the perimeter is 30 cm. Find the length of the altitude.

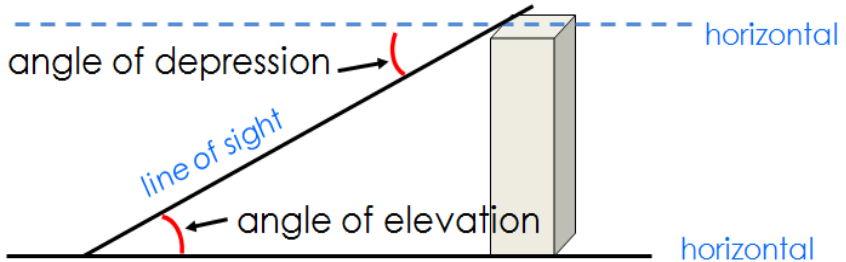
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E. In square ABCD, the diagonal is 15 inches in length. What is the perimeter of the square?

Introduction to Angle of Elevation and Depression



F. A rocket launched in outer space. After a minute, the rocket traveled 7 miles. An observer is standing 10 miles away. What is the angle of elevation that the observer is watching the rocket after a minute since the launch?

G. A ship uses sonar to locate a sunken ship. The angle of depression is 30° and horizontal distance from the ship to the sunken ship is 200 miles. How deep is the sunken ship?