

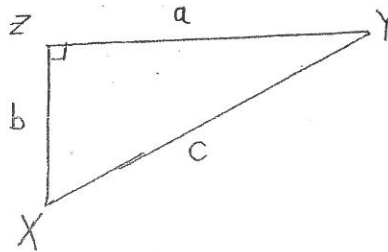
1. Thou art to write the ratio of sides which corresponds with the Trig. Function:

a.  $\sin X =$

b.  $\cos Y =$

c.  $\tan X =$

d.  $\tan Y =$



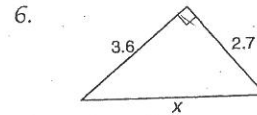
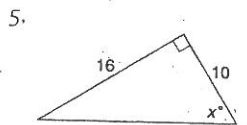
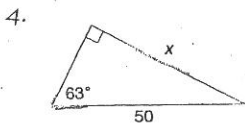
2. Why didn't I use  $\angle Z$  as a reference in problem #1?

3. Thou art to solve for each angle:

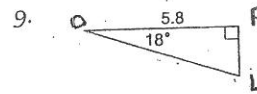
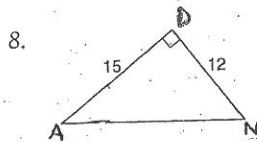
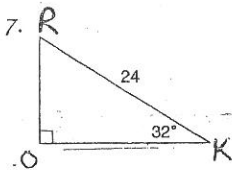
a.  $\sin A = 0.7245$

b.  $\cos B = 0.2493$

#4-6, Solve for the variable.



7-9, Solve the triangle.



10. Michelle is flying a kite. She lets out 55 ft. of string. If the string makes a  $35^\circ$  angle with the ground, how high is kite?

11. A golfer is standing at a tee (beginning) with the green (ending) in the valley below. If the tee is 43 yds. higher than green & angle of depression from tee to hole (on green) is  $14^\circ$ , find the distance from tee to hole.

12. A 20 ft. ladder leans against a wall so that base of ladder is 8 ft. from wall. What angle does ladder make with ground?

13. The angle of elevation from a ship to a 42 m. lighthouse on shore is  $33^\circ$ . How far is the ship from shore?

4. Natalie is on the Skydeck of the John Hancock Building (Chicago, IL) overlooking Lake Michigan. She sees two sailboats going due east from tower. The angles of depression to the two boats are  $42^\circ$  and  $29^\circ$ . If the Skydeck is 1335 feet high, how far apart are the two boats?