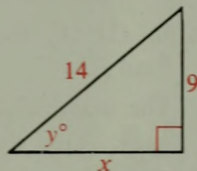
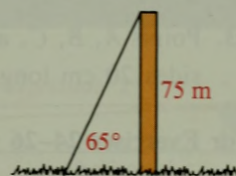


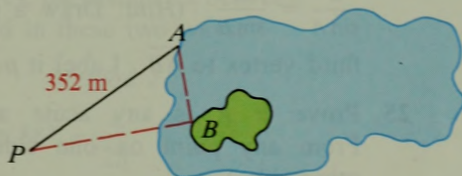
13. a. Use the Pythagorean Theorem to find the value of  $x$  in radical form.  
 b. Use trigonometry to find the values of  $y$ , then  $x$ .  
 c. Are the values of  $x$  from parts (a) and (b) in reasonable agreement?



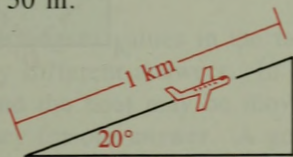
- B** 14. A guy wire is attached to the top of a 75 m tower and meets the ground at a  $65^\circ$  angle. How long is the wire?



15. To find the distance from point  $A$  on the shore of a lake to point  $B$  on an island in the lake, surveyors locate point  $P$  with  $m\angle PAB = 65$  and  $m\angle APB = 25$ . By measurement,  $PA = 352$  m. Find  $AB$ .



16. A certain jet is capable of a steady  $20^\circ$  climb. How much altitude does the jet gain when it moves 1 km through the air? Answer to the nearest 50 m.



17. A 6 m ladder reaches higher up a wall when placed at a  $70^\circ$  angle than when placed at a  $60^\circ$  angle. How much higher, to the nearest tenth of a meter?

