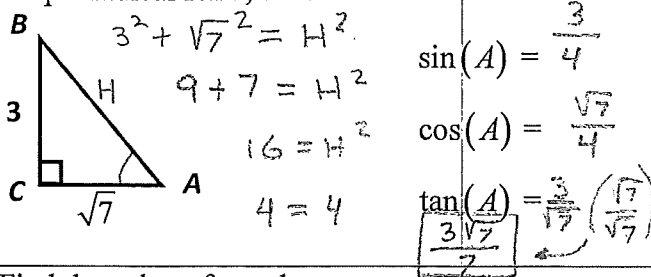
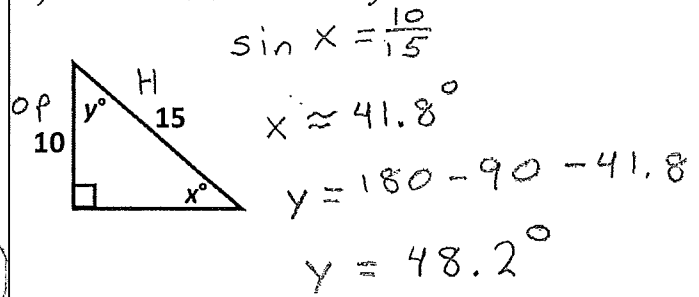


Practice Quiz

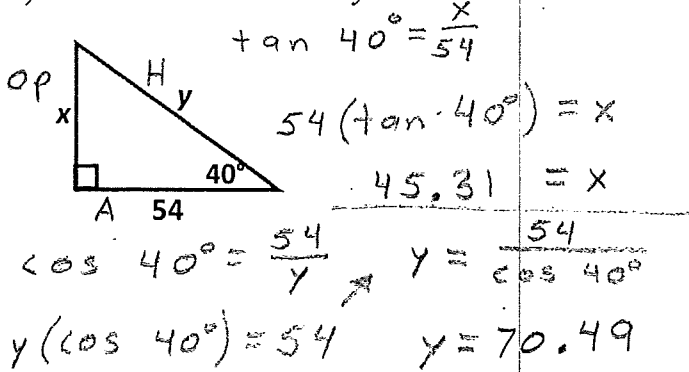
- 1) Use the Pythagorean Theorem to find the missing side length. Find each trig ratio. Leave answers in simple radical form, no decimals.



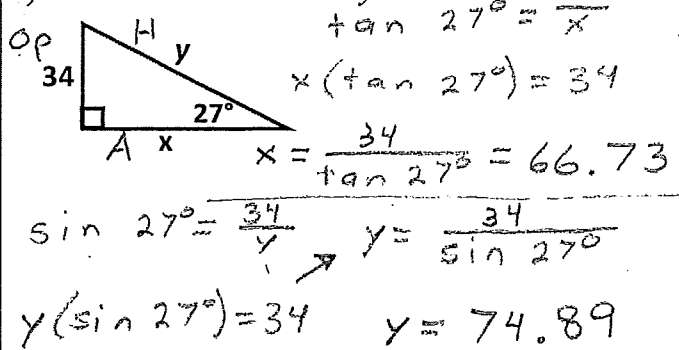
- 2) Find the value of  $x$  and  $y$ .



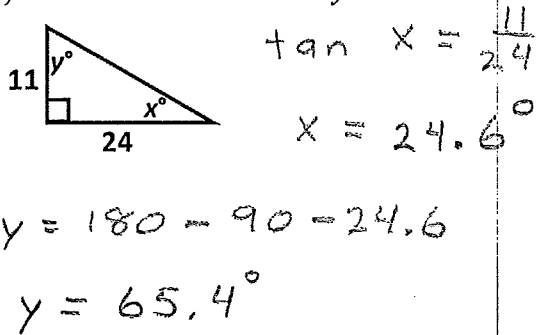
- 3) Find the value of  $x$  and  $y$ .



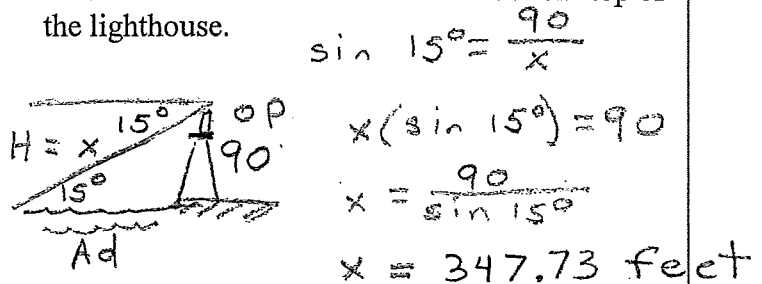
- 4) Find the value of  $x$  and  $y$ .



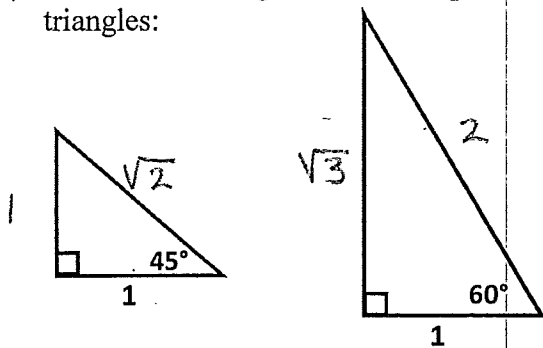
- 5) Find the value of  $x$  and  $y$ .



- 6) A lighthouse built at sea level is 90 feet high. From its top, the angle of depression to a boat is  $15^\circ$ . Find the distance from the boat to the top of the lighthouse.



- 7) Fill in the missing sides on the special right triangles:



- 8) Find the exact (no decimals approximations) value of each expression. Leave answer in simple radical form.

a)  $\sin(30^\circ) + \tan(45^\circ)$       b)  $\cos(45^\circ)\tan(30^\circ)$

$\frac{1}{2} + 1$                                    $\frac{1}{\sqrt{2}} \cdot \frac{1}{\sqrt{3}}$   
 $= \frac{1}{2} + \frac{2}{2}$                                    $= \frac{1}{\sqrt{6}} \left( \frac{\sqrt{6}}{\sqrt{6}} \right)$   
 $= \frac{3}{2}$      $= \frac{\sqrt{6}}{6}$

- 9) Which one of the following is true?

- a)  $\cos(70^\circ) = \sin(70^\circ)$   
 b)  $\cos(20^\circ) = \sin(20^\circ)$   
 c)  $\cos(20^\circ) = \sin(70^\circ)$

because  $20 + 70 = 90$

- 10) Fill in the blank to make each statement true.

- a)  $\cos(60^\circ) = \sin(30^\circ)$   
 b)  $\sin(48^\circ) = \cos(42^\circ)$