Sheet 7.1

Name _____

SOL Practice
Standard G.7

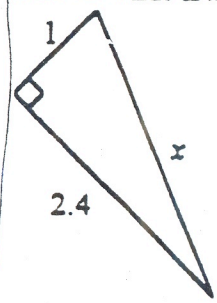
Sheet 7.7

The student will solve practical problems involving right triangles by using the Pythagorean Theorem and its converse, properties of right triangles, and right triangle trigonometry. Calculators will be used to solve problems and find decimal approximations for the solutions.

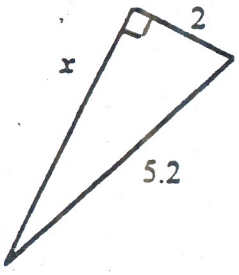
Use the Pythagorean Theorem and its converse.

answers - decimals nearest tenth

1. Find the value of x. [A] 4.76 [B] 2.6 [C] 2.18 [D] 6.76



2. Find the value of x. [A] 4.8 [B] 5.57 [C] 31.04 [D] 23.04



3. Which of the given measures are measures of the sides of a right triangle? obtuse? acute?
[A] 20, 21, 29 [B] 2, 8, 10 [C] 12, 15, 18 [D] 16, 25, 36

answers - simplified radicals

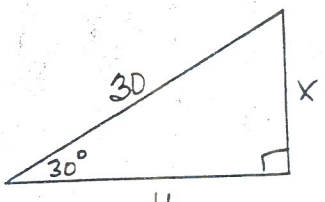
Use the properties of 45-45-90 degree triangles. Draw first!

4. In ΔABC, $\angle A$ is a right angle and $m\angle B = 45°$. If $AB = 13$ feet, find AC.
[A] 13 ft [B] $13\sqrt{2}$ ft [C] $\frac{13\sqrt{2}}{2}$ ft [D] $13\sqrt{3}$ ft

5. In ΔABC, $\angle A$ is a right angle and $m\angle B = 45°$. If $AB = 39$ feet, find BC.
[A] $\frac{39\sqrt{2}}{2}$ ft [B] $\frac{39\sqrt{3}}{2}$ ft [C] 39 ft [D] $39\sqrt{2}$ ft

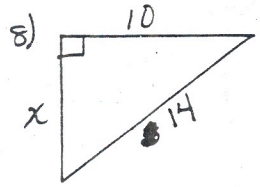
6. In ΔABC, $\angle A$ is a right angle and $m\angle B = 45°$. If $AB = 31$ feet, find AC.
[A] $\frac{31\sqrt{2}}{2}$ ft [B] $31\sqrt{2}$ ft [C] $31\sqrt{3}$ ft [D] 31 ft

7)



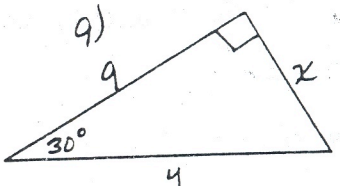
X= ___ y= ___

8)



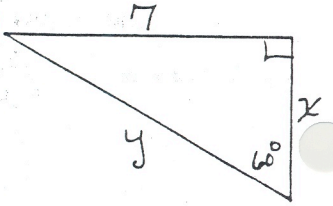
X= ___

9)



X= ___ y= ___

10)



X= ___ y= ___