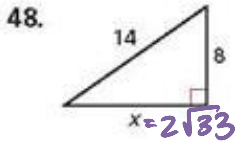
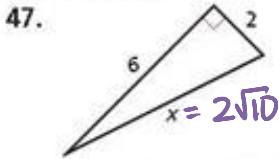


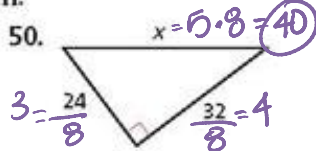
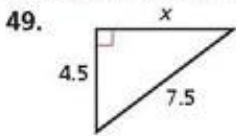
Find the value of  $x$ . Give your answer in simplest radical form.



(47)  $2^2 + 6^2 = c^2$   
 $4 + 36 = c^2$   
 $\sqrt{40} = \sqrt{c^2}$   
 $c = 2\sqrt{10}$

(48)  $x^2 + 8^2 = 14^2$   
 $x^2 + 64 = 196$   
 $\sqrt{x^2} = \sqrt{132}$   
 $x = 2\sqrt{33}$

Find the missing side length. Tell if the sides form a Pythagorean triple. Explain.



(49) Not a triple  
 $4.5^2 + x^2 = 7.5^2$   
 $20.25 + x^2 = 56.25$   
 $x^2 = 36$   
 $x = 6$

(50) yes  
 3-4-5 triple  
 $x = 40$

Tell if the measures can be the side lengths of a triangle. If so, classify the triangle as acute, obtuse, or right.

51. 9, 12, 16

52. 11, 14, 27

(51)  $9 + 12 > 16$   
 $21 > 16 \checkmark$   
 $9^2 + 12^2 > 16^2$   
 $225 > 360$   
 $\text{obtuse}$

(52)  $11 + 14 > 27$   
 $25 > 27$   
 $\text{Not a triangle}$

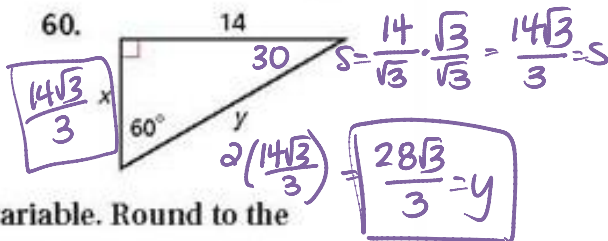
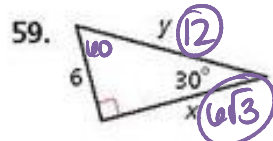
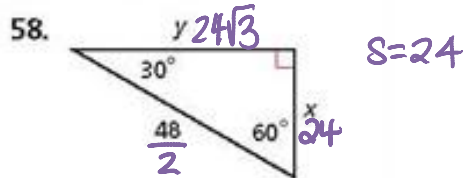
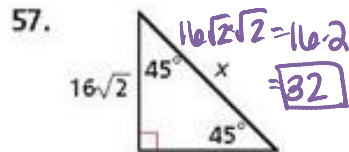
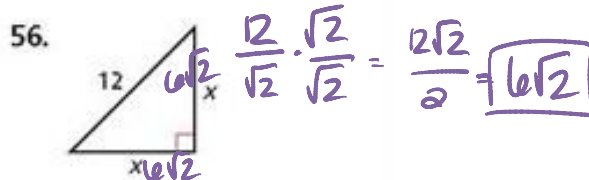
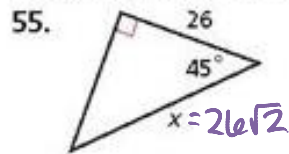
53. 1.5, 3.6, 3.9

54. 2, 3.7, 4.1

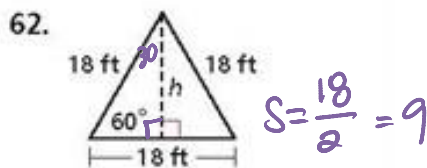
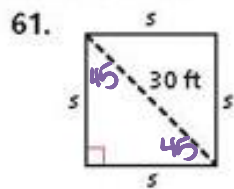
$1.5 + 3.6 > 3.9$   
 $5.1 > 3.9 \checkmark$   
 $1.5^2 + 3.6^2 > 3.9^2$   
 $15.21 = 15.21$   
 $\text{Right}$

$2 + 3.7 > 4.1$   
 $5.7 > 4.1 \checkmark$   
 $2^2 + 3.7^2 > 4.1^2$   
 $17.69 > 16.81$   
 $\text{obtuse}$

Find the values of the variables. Give your answers in simplest radical form.



Find the value of each variable. Round to the nearest inch.



$s = \frac{30}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{30\sqrt{2}}{2} = 15\sqrt{2} = s$

$h = 9\sqrt{3}$