

## Right Triangles (For use after Section 6-4)

Tell whether a triangle formed with sides having the lengths named is acute, right, or obtuse. If a triangle can't be formed, write *not possible*.

1. 4, 5, 6 \_\_\_\_\_

2. 5, 12, 13 \_\_\_\_\_

3. 2, 7, 9 \_\_\_\_\_

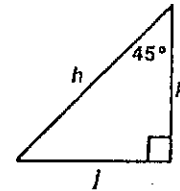
4.  $1, \sqrt{7}, 2\sqrt{2}$  \_\_\_\_\_

5. 6, 8, 12 \_\_\_\_\_

6.  $\sqrt{5}, 2\sqrt{5}, 5$  \_\_\_\_\_

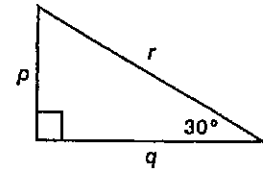
Complete the tables.

	7.	8.	9.	10.	11.
<i>j</i>	3				
<i>k</i>		$\frac{1}{2}$	$\sqrt{2}$		
<i>h</i>				8	$\sqrt{6}$



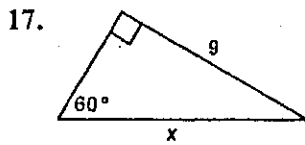
Exs. 7-11

	12.	13.	14.	15.	16.
<i>p</i>	5			$2\sqrt{3}$	
<i>q</i>		$3\sqrt{3}$			
<i>r</i>			20		$6\sqrt{6}$

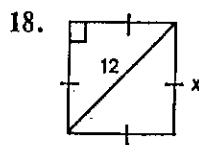


Exs. 12-16

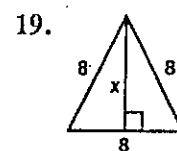
Find the missing lengths in each figure. The diagram in Exercise 21 shows a three-dimensional figure.



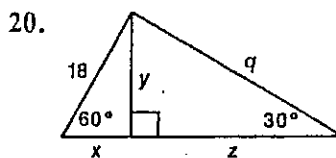
$x =$  \_\_\_\_\_



$x =$  \_\_\_\_\_



$x =$  \_\_\_\_\_

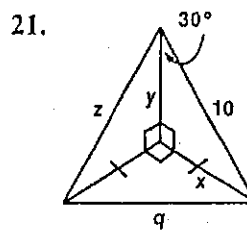


$x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_

$z =$  \_\_\_\_\_

$q =$  \_\_\_\_\_



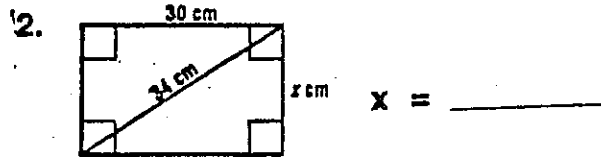
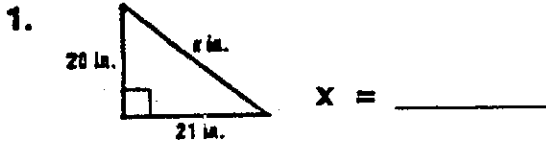
$x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_

$z =$  \_\_\_\_\_

$q =$  \_\_\_\_\_

Use the Pythagorean Theorem to find the value of  $x$ .

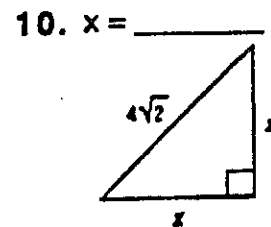
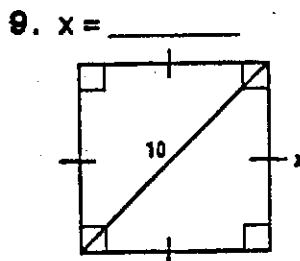
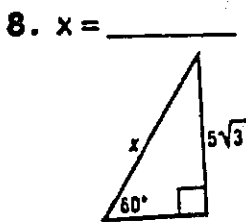
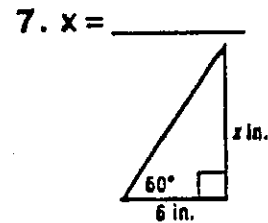
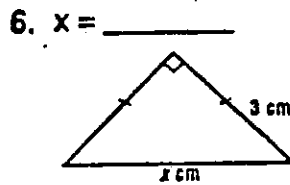
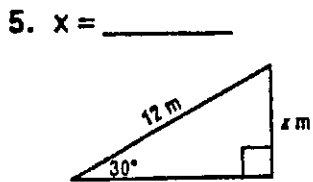


Determine whether a triangle with sides having the given measures is a right triangle. Show all work, then write *yes* or *no*.

3. 10, 12, 16  $\underline{\hspace{2cm}}$

4. 7, 24, 25  $\underline{\hspace{2cm}}$

For 5-10 below, find the value of  $x$ .



11. The perimeter of an equilateral triangle is 48 cm. Find the length of the altitude.  $\underline{\hspace{2cm}}$

