

Similarity in Right Triangles; The Pythagorean Theorem

For use after Section 8-2

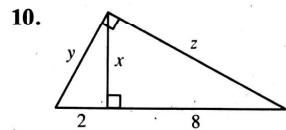
Simplify.

1. $\sqrt{100}$ _____ 2. $2\sqrt{50}$ _____ 3. $\sqrt{20} \cdot \sqrt{6}$ _____
 4. $\frac{2}{\sqrt{5}}$ _____ 5. $\sqrt{\frac{1}{3}}$ _____ 6. $\left(\frac{\sqrt{3}}{3}\right)^2$ _____

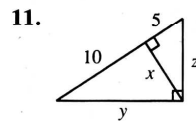
Find the geometric mean between the two numbers.

7. 6 and 24 _____ 8. 3 and 12 _____ 9. 3 and 64 _____

Each diagram shows a right triangle with the altitude drawn to the hypotenuse. Find the values of x , y , and z .

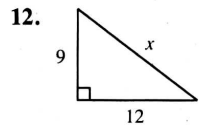


$x =$ _____, $y =$ _____, $z =$ _____

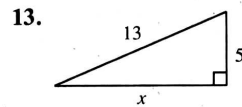


$x =$ _____, $y =$ _____, $z =$ _____

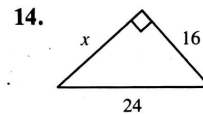
Find the value of x .



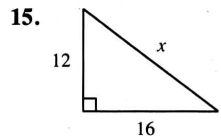
$x =$ _____



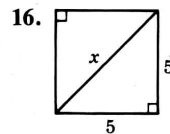
$x =$ _____



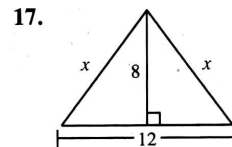
$x =$ _____



$x =$ _____



$x =$ _____



$x =$ _____

18. A rectangle has length 2.4 m and width 0.7 m. Find the length of a diagonal. _____

19. A square has perimeter 12 cm. Find the length of a diagonal. _____

20. The diagonals of a rhombus have lengths 12 and 16. Find the perimeter of the rhombus. _____

1)	2)
3)	4)
5)	6)
7)	8)
9)	10)
11)	12)
13)	14)
15)	16)
17)	18)
19)	20)

Practice 32

Right Triangles

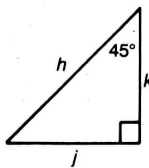
Lessons 8-1 through 8-4

Tell whether a triangle with sides of the given lengths 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. $\sqrt{5}, 2\sqrt{5}, 5$ _____

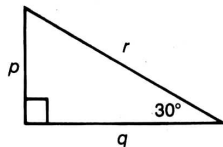
Complete the tables.

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



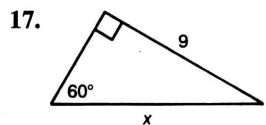
Exs. 7-11

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

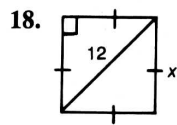


Exs. 12-16

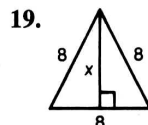
Find the missing lengths in each figure. The diagram in Exercise 21 shows a three-dimensional figure.



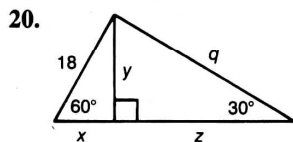
$x =$ _____



$x =$ _____

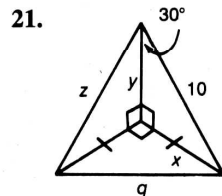


$x =$ _____



$x =$ _____ $y =$ _____

$z =$ _____ $q =$ _____



$x =$ _____ $y =$ _____

$z =$ _____ $q =$ _____

1)	2)
3)	4)
5)	6)
7)	8)
9)	10)
11)	12)
13)	14)
15)	16)