Name: _____ Date: _____ Row: _____ Period: _____ Assignment #: _____

Right Triangles

Complete.

1. The geometric mean between 6 and 15 is _____.
2. In simplest form, $\frac{2}{\sqrt{3}}$ = _____.

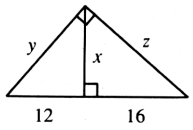
Find the length of each segment.

3. The hypotenuse of a right triangle with legs of lengths 5 and 12 _____
4. A diagonal of a rectangle with width 7 cm and length 24 cm _____
5. A diagonal of a square with sides of length 12 _____
6. The altitude to the base of an isosceles triangle with sides of lengths 12, 12, and 20 _____

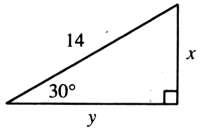
Tell whether the triangle with sides of the given lengths is acute, right, or obtuse.

7. 7, 7, 10 _____
8. 6, 7, 8 _____
9. 1, 2.4, 2.6 _____

Find the value of each variable.

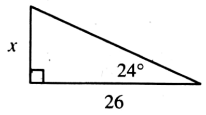
10. 

x = _____
y = _____
z = _____

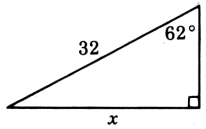
11. 

x = _____
y = _____

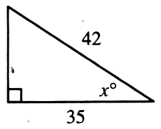
Find the value of x correct to the nearest integer. Use a scientific calculator or the table on page 311 of the text.

12. 

$x \approx$ _____

13. 

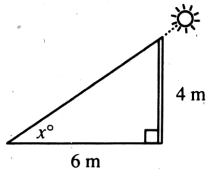
$x \approx$ _____

14. 

$x \approx$ _____

15. At a certain time, a vertical pole 4 m tall casts a shadow 6 m long. Find, to the nearest degree, the angle of elevation of the sun. Use a calculator or the table on page 311 of the text.

_____

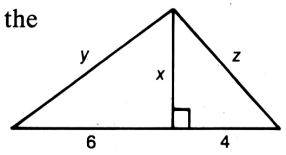


1)	2)
3)	4)
5)	6)
7)	8)
9)	10)
12)	13)
14)	15)

Practice 34
Chapter 8 Practice

In Exercises 1–3, classify each statement as true or false.

1. The geometric mean between 6 and 10 is $2\sqrt{15}$. _____
2. When simplified, $\frac{1}{\sqrt{8}}$ equals $\frac{\sqrt{2}}{4}$. _____
3. A triangle with sides having lengths 5, 10, and 12 must be acute. _____
4. The diagram shows a right triangle with the altitude drawn to the hypotenuse. Find the values of x, y, and z.

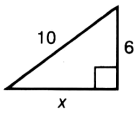


x = _____

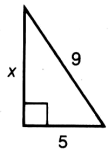
y = _____

z = _____

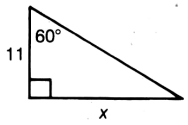
Find the value of x.

5. 

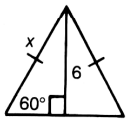
x = _____

6. 

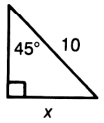
x = _____

7. 

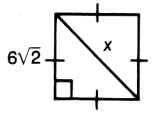
x = _____

8. 

x = _____

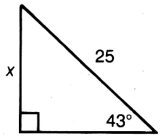
9. 

x = _____

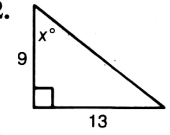
10. 

x = _____

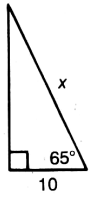
Use a calculator or the table on page 311 of the text to find the value of x. Find lengths correct to the nearest integer and angles correct to the nearest degree.

11. 

x = _____

12. 

x = _____

13. 

x = _____

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