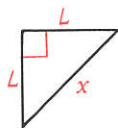
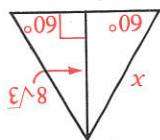


13.

Find the value of x .



14.



15.

6-4

11. 11, 60, 61

12. $2\sqrt{3}$, $3\sqrt{2}$, 6

9. 4, 5, 6

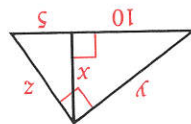
10. 8, 8, 17

6-3

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*.

5. The legs of a right triangle are 3 and 6. Find the length of the hypotenuse.
6. A rectangle has sides 10 and 8. Find the length of a diagonal.
7. The diagonal of a square has length 14. Find the length of a side.
8. The legs of an isosceles triangle are 10 units long and the altitude to the base is 8 units long. Find the length of the base.

6-2



4. $z = ?$

3. $y = ?$

2. $x = ?$

1. Find the geometric mean between 12 and 3.

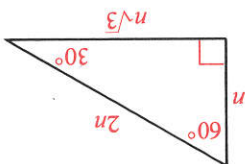
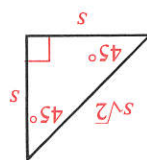
6-1

Chapter Review

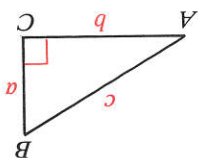
The tangent, sine, and cosine ratios are useful in solving problems involving right triangles.

$$\tan A = \frac{b}{a} \quad \sin A = \frac{c}{a} \quad \cos A = \frac{b}{c}$$

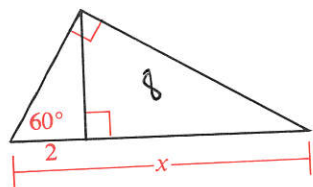
5. In the right triangle shown:



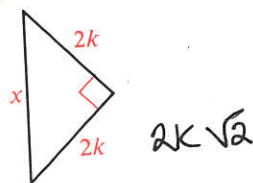
4. The sides of a 45° - 45° - 90° triangle and the sides of a 30° - 60° - 90° triangle are related as shown.



16. Find the value of x .

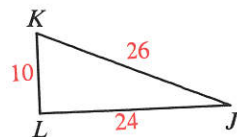
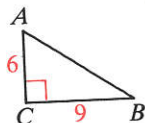


17. Express x in terms of k .



Complete. For Exercises 20, 21, 24, and 25 use the table on page 271.

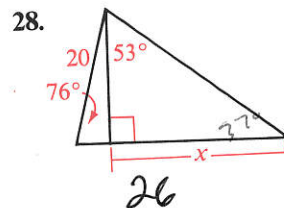
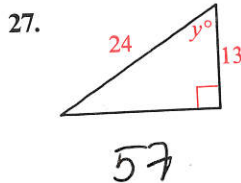
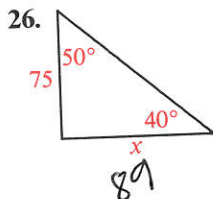
- 1.5 18. $\tan A = ?$
 2/3 19. $\tan B = ?$
 3.0977 20. $\tan 72^\circ \approx ?$
 24° 21. $\tan ? \approx 0.4452$
 5/13 22. $\sin J = ?$
 23. $\cos K = ?$
 24. $\cos ? \approx 0.2588$
 25. $\sin 43^\circ \approx ?$



6-5

6-6

Find x correct to the nearest integer. Find y correct to the nearest degree.



6-7

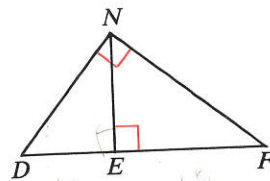
Chapter Test

Find the geometric mean between the numbers.

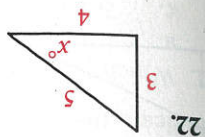
1. 5 and 20 2. 6 and 8

In the diagram, $\angle DNF$ is a right angle and $\overline{NE} \perp \overline{DF}$.

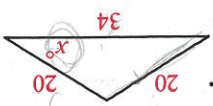
3. $\triangle DNF \sim \triangle ?$, and $\triangle DNF \sim \triangle ?$.
 4. NE is the geometric mean between $?$ and $?$.
 5. NF is the geometric mean between $?$ and $?$.
 6. If $DE = 10$ and $EF = 15$, then $ND = ?$.



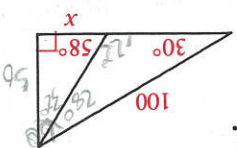
1824
0167
0121



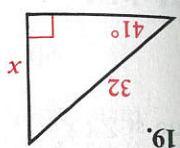
22.



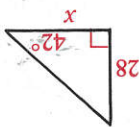
23.



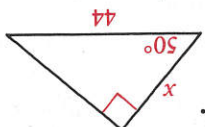
24.



19.



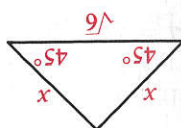
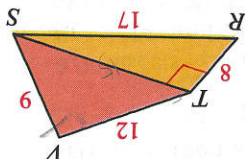
20.



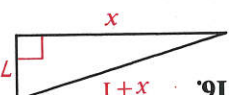
21.

In Exercises 19-24 use the table on page 271. Find lengths correct to the nearest integer and angle measures correct to the nearest degree.

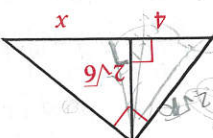
18. In the diagram, $\angle RTS$ is a right angle; \overline{RT} , \overline{RS} , \overline{VT} , and \overline{VS} have the lengths shown.
a. What kind of angle is $\angle V$?
b. Explain your answer to part (a).



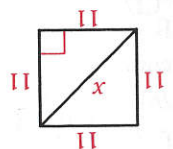
15.



16.

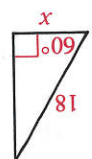


17.

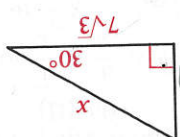


12.

13.



14.



Find the value of x.

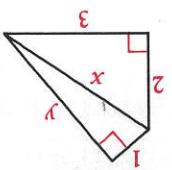
8. 3, 4, 8

9. 11, 12, 13

10. 7, 7, 10

11. $\frac{5}{4}$, $\frac{5}{4}$, 1

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*.



7. Find the values of x and y.