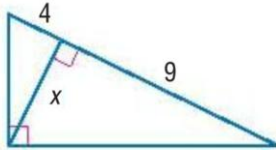


# Chapter 8 Review

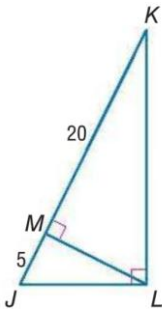
## 8-1 Geometric Means

1. Find the geometric mean between 9 and 8.

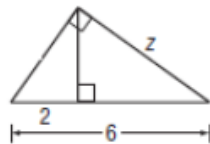
2. Find  $x$ .



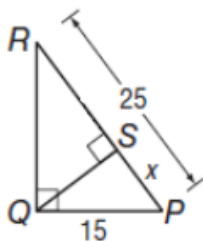
3. Find  $JL$ .



4. Find  $z$ .

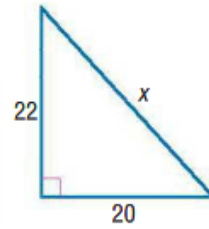


5. Find  $x$ .

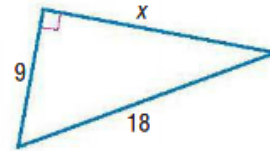


## 8-2 Pythagorean Theorem

6. Find  $x$ .



7. Find  $x$ .



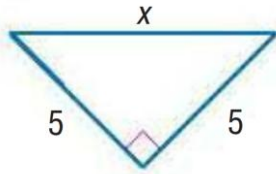
8. Determine whether 7, 24, and 25 could be the sides of a triangle. If so, classify the triangle as *acute*, *obtuse* or *right*.

9. Determine whether 13, 15, and 16 could be the sides of a triangle. If so, classify the triangle as *acute*, *obtuse* or *right*.

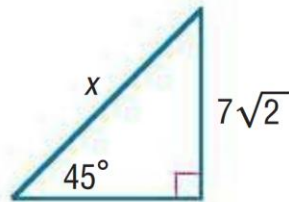
10. Determine whether 65, 72, and 140 could be the sides of a triangle. If so, classify the triangle as *acute*, *obtuse* or *right*.

**8-3 Special Right Triangles  $45^\circ-45^\circ-90^\circ$**

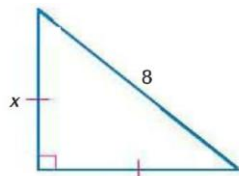
11. Find  $x$



12. Find  $x$



13. Find  $x$

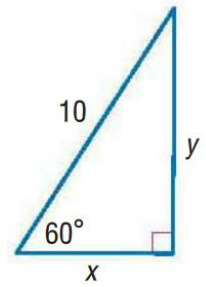


14. What is the length of the diagonal of a square if the length of the leg is  $6\sqrt{2}$  ?

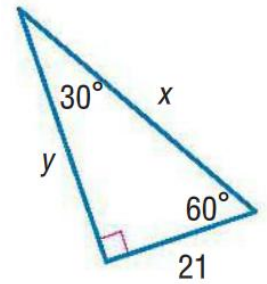
15. Find the perimeter of a square if the length of the diagonal is 10.

**8-3 Special Right Triangles  $30^\circ-60^\circ-90^\circ$**

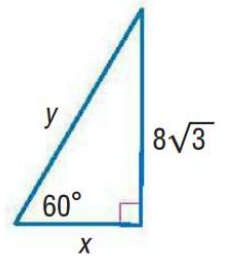
16. Find  $x$  and  $y$



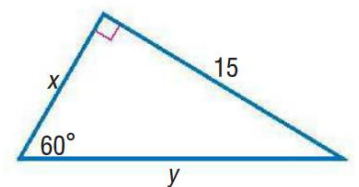
17. Find  $x$  and  $y$



18. Find  $x$  and  $y$



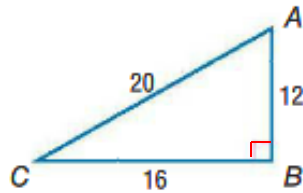
19. Find  $x$  and  $y$



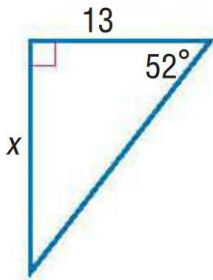
20. An equilateral triangle has an altitude length of 18 feet. Determine the length of a side of the triangle.

## 8-4 Trigonometry

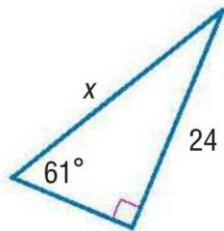
21. Express  $\sin A$  as a fraction and as a decimal rounded to the nearest hundredth.



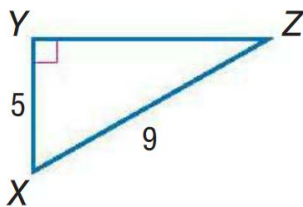
22. Find  $x$ . Round to the nearest tenth.



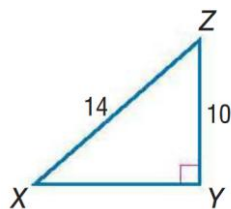
23. Find  $x$ . Do NOT give a decimal answer.



24. Find the measure of angle Z to the nearest tenth.

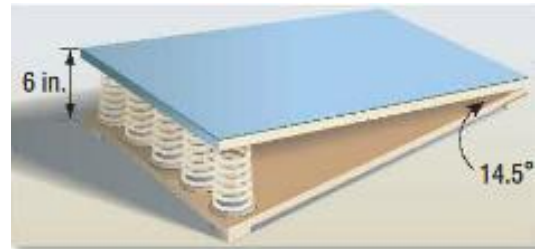


25. Find the measure of angle Z to the nearest tenth.



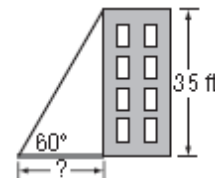
## Miscellaneous

26. The springboard that Eric uses in his gymnastics class has 6-inch coils and forms an angle of  $14.5^\circ$  with the base. About how long is the springboard?



27. Alexi walks 27 meters south and 38 meters east to get around a lake. Her sister swims directly across the lake. How many meters to the nearest tenth did Alexi's sister save by swimming?

28. Suppose the sun casts a shadow off a 35-foot building. If the angle of elevation to the sun is  $60^\circ$ , how long is the shadow to the nearest tenth of a foot?



29. Find the length of the side of an equilateral triangle that has an altitude length of 24 feet.

30. A ski run is 1000 yards long with a vertical drop of 208 yards. Find the angle of depression from the top of the ski run to the bottom. Round to the nearest degree.

