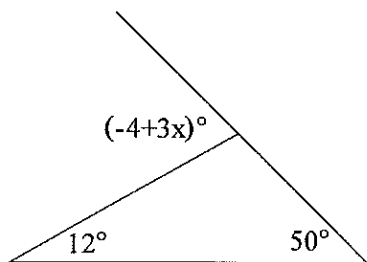


1. $P(-3, 4)$ is rotated 90° clockwise about the origin to point P' . Find the coordinates of P' .

2. Solve for x :



3. Find the area of a square with a diagonal with length $2\sqrt{5}$.

For 4-7 simplify, answers should be left in radical form.

4. $\sqrt{32}$

5. $\frac{1}{6}\sqrt{48}$

6. $\frac{4}{\sqrt{2}}$

7. $\sqrt{72} + \sqrt{75} - \sqrt{48}$

For 8-15 solve for x .

8. $x^2 = \frac{1}{4}$

9. $x^2 = 18$

10. $x^2 = (5\sqrt{3})^2 + (\sqrt{5})^2$

11. $x^2 - 18 - 3x = 0$

12. $-x^2 + 5x + 36 = 0$

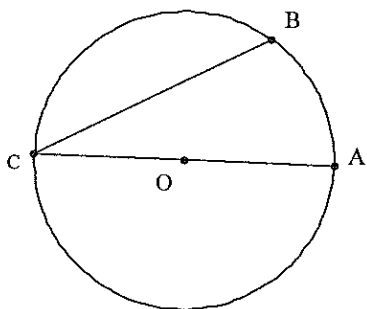
13. $x^2 - 2x = 11x$

14. $12x^2 - 15 = -11x$

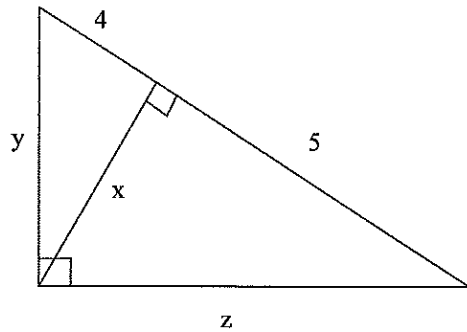
15. $\frac{7}{x+1} = \frac{2x+4}{3x-3}$

16.

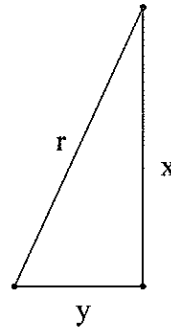
In $\odot O$, $m\widehat{AB} = 50^\circ$. Find $m\widehat{BC}$ and $m\angle BCA$



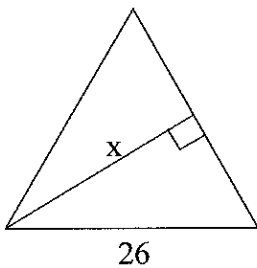
17. Find $2x$, $\frac{1}{2}y$, and $z + 8$, using the diagram below.



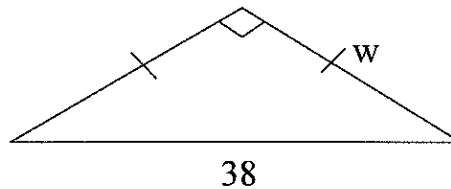
18. Solve for the third side of the triangle if $x = 2\sqrt{5}$, $r = \sqrt{38}$.



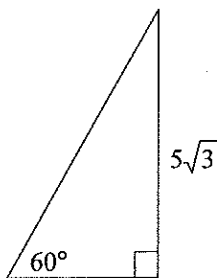
19. Solve for x in this equilateral triangle.



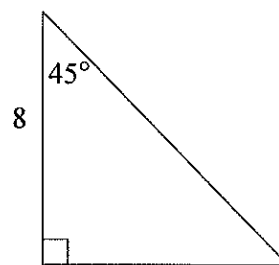
20. Solve for w in the triangle below



21. Find all of the missing sides of the triangle.

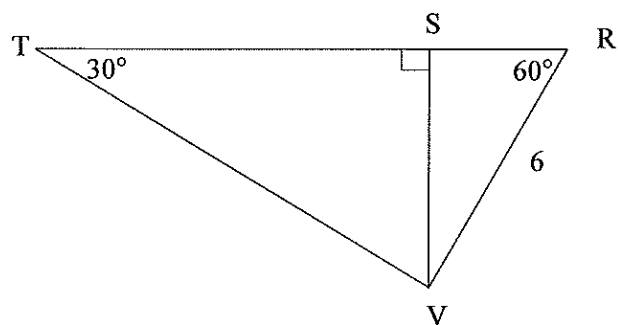


22. Find all of the missing sides of the triangle.



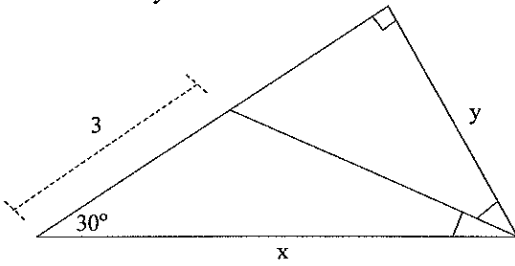
23. Using the figure on the right find

- VS
- ST
- VT
- the ratio of the perimeter of $\triangle VSR$ to the perimeter of $\triangle VRT$



24. Find the edge of a cube whose diagonal is $7\sqrt{3}$.

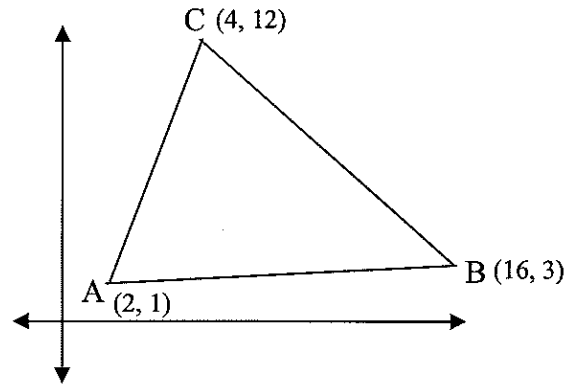
25. Find x and y



Use the following diagram for numbers 26 and 27.

26. Write an equation of the altitude from C to \overline{AB} .

27. Write an equation of the median from C to \overline{AB} .



28. A line has a y -intercept of 2 and forms a 60° angle with the x -axis. Find equations of the two possible lines.

29. Find an equation of the line whose intercepts are twice those of the graph $2x + 5y = 10$.

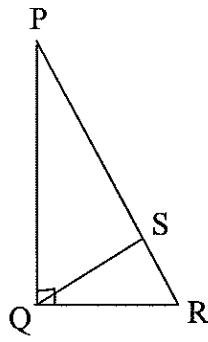
30. Solve:
$$\begin{cases} x + 2y = 12 \\ x - \text{axis} \end{cases}$$

31. Solve:
$$\begin{cases} 5x - 4y = -4 \\ 2x + 2y = -\frac{7}{10} \end{cases}$$

32. Solve:
$$\begin{cases} 0.3x - 0.2y = 1.4 \\ 0.12x - 0.8y = 0.56 \end{cases}$$

33. A triangle has sides of 26, 26, and 48. Find the area of the triangle.

34. If $QR = 6$ and $RS = 2$, Find PR .
 $\angle QSP$ is a right angle



35. Add: $\frac{1}{8} + \frac{4}{9}$

36. Subtract: $\frac{2}{7} - \frac{5}{6}$

37. Multiply: $\frac{4}{5} \cdot \frac{3}{8}$

38. Divide: $\frac{2}{3} \div \frac{5}{4}$

39. Solve: $x^2 - 10x + 21 = 0$

40. Solve: $3x^2 + 2x = x^2 + 5x - 1$

41. Use the quadratic formula to solve: $4x^2 + 2x - 5 = 0$

42. Use the quadratic formula to solve: $2x^2 + 3x - 1 = 0$