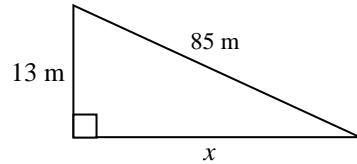


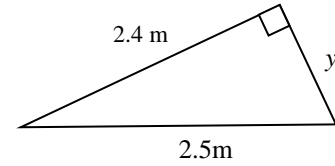
**10-1 The Pythagorean Theorem**

Find the missing side length in each triangle. Include units with your answer. If necessary, round to the nearest tenth.

1.



2.



3. Are the lengths 8, 40, and 41 the side lengths for a right triangle? Show how you know.

4. Are the lengths 1.3, 8.4, and 8.5 the side lengths for a right triangle? Show how you know.

**10-2 Simplifying Radicals**

Simplify each radical expression.

5.  $3\sqrt{14} \cdot (-2\sqrt{21})$

6.  $\sqrt{8} \cdot \left(\frac{1}{4}\sqrt{6}\right)$

7.  $\sqrt{\frac{25a^3}{4a}}$

8.  $\frac{\sqrt{8k}}{\sqrt{18k^7}}$

**10-3 Operations with Radical Expressions**

Simplify each radical expression.

9.  $5\sqrt{6} - 3\sqrt{6}$

10.  $\sqrt{2}(\sqrt{8} - \sqrt{6})$

11.  $(3\sqrt{2} - 2\sqrt{5})(4\sqrt{2} + 2\sqrt{5})$

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

Answers 7-12:  $\frac{5a}{2}, \frac{2}{3k}, 2\sqrt{6}, 4 - 2\sqrt{3}, 4 - 2\sqrt{10}, 3\sqrt{6}$

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**10-4 Solving Radical Equations**

Solve each radical equation and check your solution. If there is no solution, write *no solution*.

13.  $\sqrt{x-5}=8$

14.  $\sqrt{w-2}=4$

15.  $\sqrt{2+d}=d$

16.  $2\sqrt{r}=\sqrt{3r+1}$

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**10-5 Graphing Square Root Functions**

Find the domain of each function:

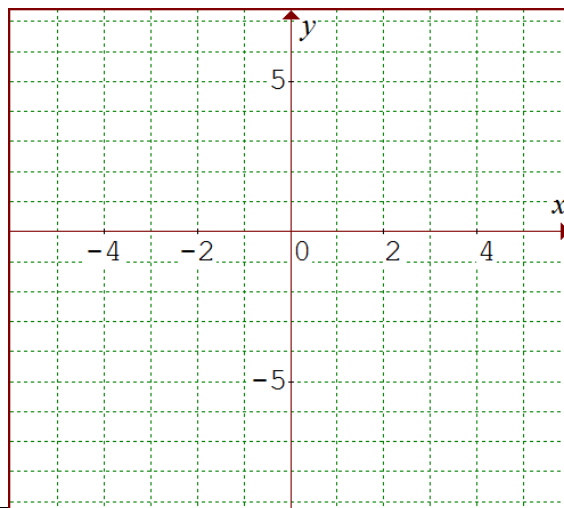
17.  $y = \sqrt{x+4}$

18. Given the square root function  $y = \sqrt{x} - 6$

- a. Choose appropriate values for  $x$  and complete the table below. If necessary, round to the nearest tenth. (min 5 points)

| $x$ | $y = \sqrt{x} - 6$ | $y$ |
|-----|--------------------|-----|
|     |                    |     |
|     |                    |     |
|     |                    |     |
|     |                    |     |
|     |                    |     |
|     |                    |     |
|     |                    |     |

- b. Use your points to graph the function. Graph accurately to the edge of the grid.



19. Given the square root function  $y = 2\sqrt{x+4}$

- a. Choose appropriate values for  $x$  and complete the table below. If necessary, round to the nearest tenth. (min 5 points)

| $x$ | $y = 2\sqrt{x+4}$ | $y$ |
|-----|-------------------|-----|
|     |                   |     |
|     |                   |     |
|     |                   |     |
|     |                   |     |
|     |                   |     |
|     |                   |     |
|     |                   |     |

- b. Use your points to graph the function. Graph accurately to the edge of the grid.

