

1. Fill in the box using the given information.

Value of a and b	Value of $\sqrt{a}\cdot\sqrt{b}$	Value of \sqrt{ab}
a = 4, b = 9		
a = 9, b = 16		
a = 25, b = 4		
a = 16, b = 36		
a = 3, b = 8		

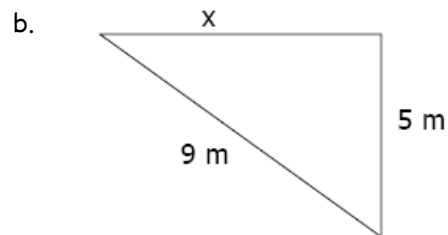
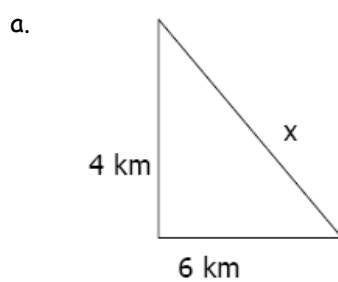
2. Simplify each radical as much as possible.

- a. $\sqrt{121}$ _____ b. $\sqrt{36}$ _____ c. $\sqrt{-4}$ _____ d. $\sqrt{4\cdot7}$ _____
 e. $\sqrt{54}$ _____ f. $\sqrt{x^2}$ _____ g. $\sqrt{100x^2}$ _____ h. $\sqrt{90}$ _____

3. Solve the equation for x.

- a. $\sqrt{x} - 2 = 13$ b. $8\sqrt{x} - 24 = 0$ c. $\sqrt{2x-1} = 7$

4. Use the Pythagorean Theorem to find the missing side length. ($a^2 + b^2 = c^2$)



Use the distance formula and midpoint formula to calculate the following values.

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} \quad \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

5. Find the distance between the two points

a. $(-6, 3), (-4, 2)$

b. $(2, 4), (5, 6)$

6. Find the midpoint of the line segment with the given endpoints.

a. $(5, 3), (7, 11)$

b. $(2, -4), (8, 4)$

7. The distance d between two points is given. Find the missing value, x .

$(x, 4), (2, -1)$...distance between those two points is 5