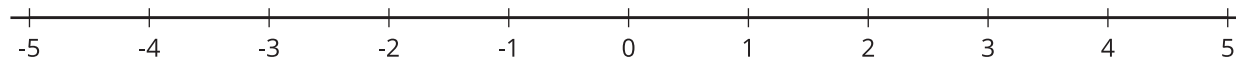


Lesson 15: Irrational Numbers

- Let's explore irrational numbers

15.1: Finding a Home for Irrational Numbers



Use the number line to place these values in their approximate location.

1. $\sqrt{5}$

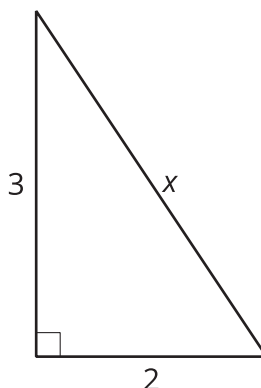
2. $-\sqrt{13}$

3. $3 + \sqrt{2}$

4. $3 - \sqrt{2}$

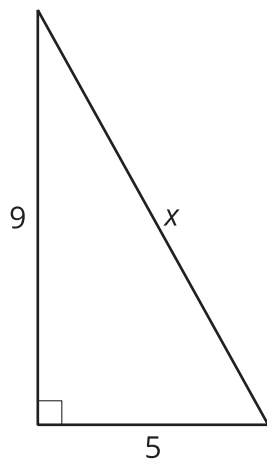
15.2: Solving for Missing Sides

For each triangle, use the Pythagorean Theorem to find the length of the missing side.

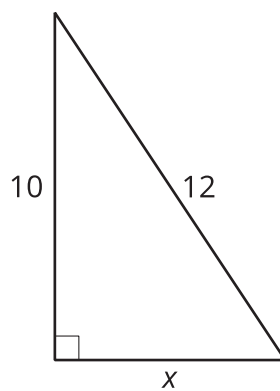


1.

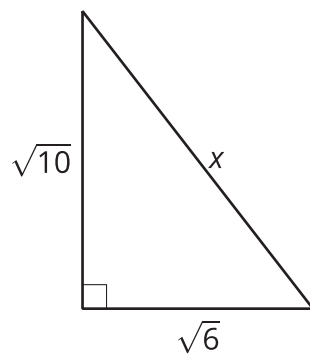
2.



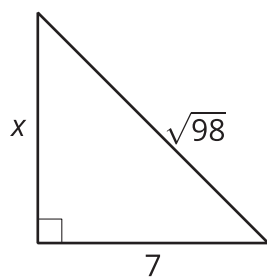
3.



4.



5.



15.3: Solving with Square Roots

Solve each of these equations. Represent the solutions exactly. If the solution is not a whole number, what 2 whole numbers does each solution lie between? Be prepared to explain your reasoning.

1. $(x + 1)^2 = 64$

2. $(x - 3)^2 - 4 = 0$

3. $x^2 = 10$

4. $(x - 2)^2 = 12$

5. $(x + 3)^2 = 24 + 4$