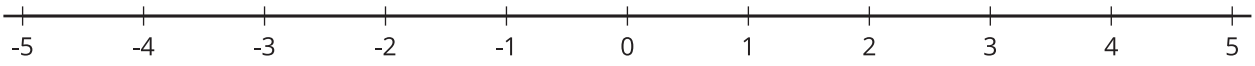
Unit 8, Lesson 15

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.

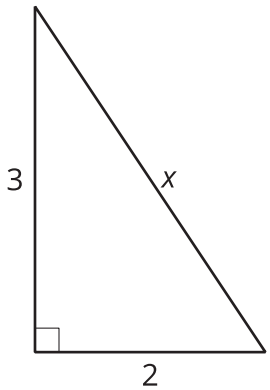


1. $\sqrt{5}$
2. $-\sqrt{13}$
3. $3+\sqrt{2}$
4. $3-\sqrt{2}$

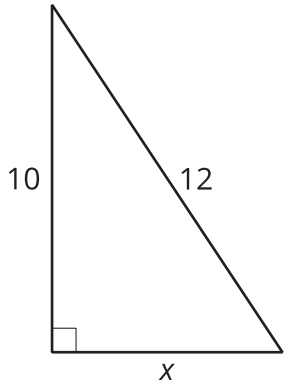
15.2 Solving for Missing Sides

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

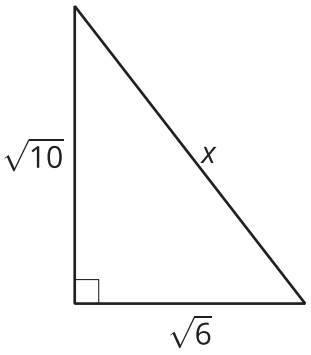
1.



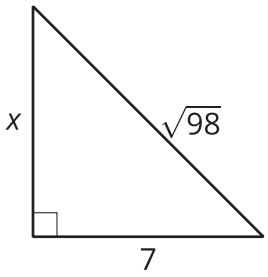
2.



3.



4.



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