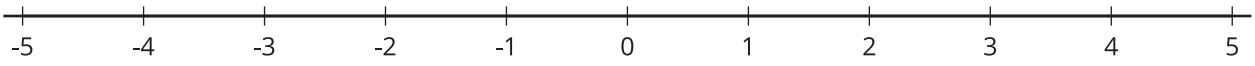
Unit 8, Lesson 15

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.

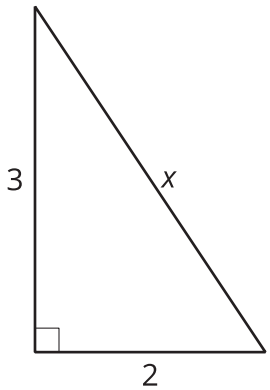


1. $\sqrt{5}$
2. $-\sqrt{13}$
3. $3+\sqrt{2}$
4. $3-\sqrt{2}$

15.2 Solving for Missing Sides

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

1.



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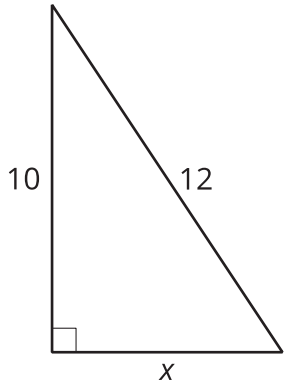

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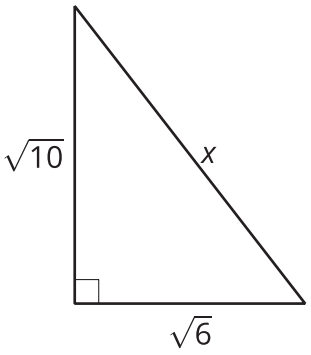

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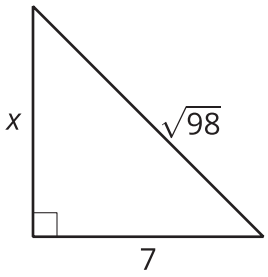

15.3 Solving with Square Roots

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