## Unit 7 Lesson 15: Irrational Numbers

### 1 Finding a Home for Irrational Numbers (Warm up)

#### Student Task Statement



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

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

### 2 Solving for Missing Sides

#### Images for Launch







#### Student Task Statement

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

1. 
2. 
3. 
4. 
5. 

### 3 Solving with Square Roots

#### Student Task Statement

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. $\left(x+1\right)^{2}=64$
2. $\left(x−3\right)^{2}−4=0$
3. $x^{2}=10$
4. $\left(x−2\right)^{2}=12$
5. $\left(x+3\right)^{2}=24+4$

#### Activity Synthesis







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