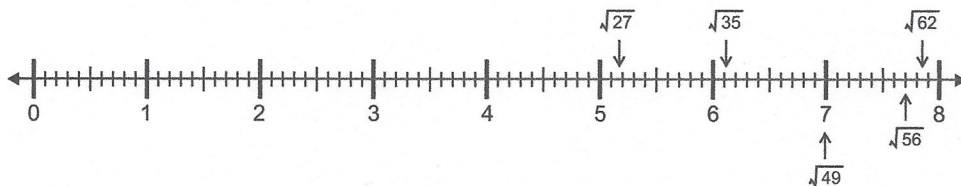


Master 1.27

Extra Practice 4

Lesson 1.4: Estimating Square Roots

1. Use the number line below.
- Which placements are good estimates of the square roots?
Explain your reasoning.
 - Use the number line to estimate the value of each square root that is incorrectly placed.



- Which two consecutive numbers is each square root between? How do you know?
 - Use guess and check to estimate the value of each square root to two decimal places.
 - $\sqrt{15}$
 - $\sqrt{72}$
 - $\sqrt{110}$
 - $\sqrt{41}$
3. Is each statement true or false? Explain.
- $\sqrt{19}$ is between 18 and 20.
 - $\sqrt{101}$ is greater than 10.
 - $\sqrt{5 + 10}$ is less than $\sqrt{5} + \sqrt{10}$.
 - $\sqrt{3} \times \sqrt{8}$ is less than $\sqrt{36}$.
 - $\sqrt{12} + \sqrt{10}$ is less than $\sqrt{32} - \sqrt{10}$.
 - $\sqrt{1} + \sqrt{1} + \sqrt{1}$ is equal to $\sqrt{3}$.
4. Chess is played on a square board.
A particular board has an area of about 3250 cm^2 .
What are the approximate dimensions of the board to two decimal places?
5. A farmer has 600 m of fencing.
He wants to enclose a square field of area $24\,200 \text{ m}^2$.
What are the approximate dimensions of the field?
Give your answer to one decimal place.
Does the farmer have enough fencing to enclose the field? Explain.