

Activity 2 Assessment

Calculating Square Roots of Perfect Squares

Content: Calculating Square Roots of Perfect Squares

Determines the square root of fractions or decimals that are perfect squares using a calculator

"I can use the $\sqrt{}$ button on a calculator to determine the square root of a number: $\sqrt{0.81} = 0.09$."

Determines the square root of whole numbers that are perfect squares using non-calculator strategies (e.g., using mental math)

"I know that $4 \times 4 = 16$, so the square root of 16 is 4."

Determines the square root of fractions or decimals that are perfect squares using non-calculator strategies (e.g., using mental math)

" $3 \times 3 = 9$ and $4 \times 4 = 16$, so the square root of $\frac{9}{16}$ is $\frac{3}{4}$."

Solves real-world problems by determining the square roots of rational numbers

"If the area of the field is 31.36 m^2 , then the side length of the field is the square root of its area."

Observations/Documentation

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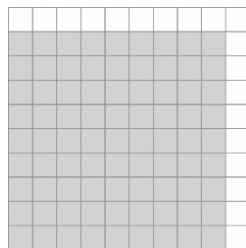
Competency: Representing

Represents perfect squares of whole numbers

"I can use 16 grid squares to make a square, so 16 is a perfect square."

Represents a fraction that is a perfect square on a grid

"I can represent $\frac{81}{100}$ by outlining a 10 by 10 grid, then shading 81 grid squares to make a square."

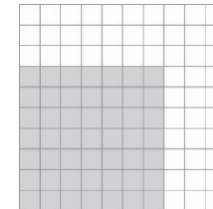


Represents a fraction on a grid to determine whether it is a perfect square

"For $\frac{47}{64}$, I can represent the denominator as an 8-by-8 grid, but I can't represent 47 as a square. So, $\frac{47}{64}$ is not a perfect square."

Relates fraction models to decimals

"I can think of 0.49 as $\frac{49}{100}$. I can represent the denominator as a 10-by-10 grid, then shade a 7-by-7 square to represent the numerator, 49. So, $\frac{49}{100}$ and 0.49 are perfect squares."



Observations/Documentation