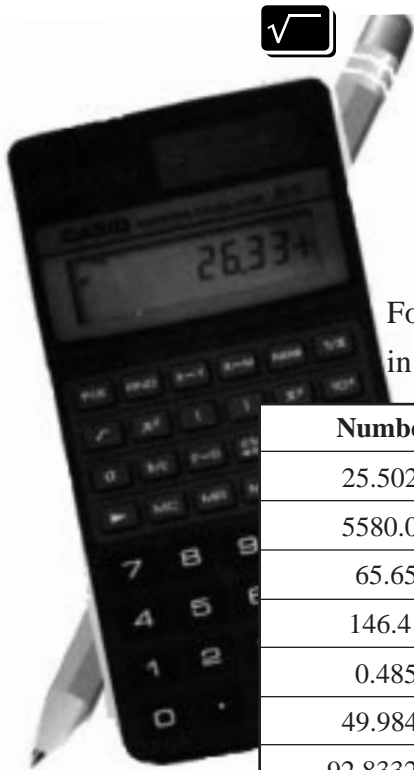


Square Round Up

Squares and Square Roots

During a math contest at school, Ron, Paulo, and Carin competed in a Square Round Up game. The rules of the game are given below.



RULES

- If the number is a perfect square, find and record the square root.
- If the number is not a perfect square, find and record the square of the number.
- You may use your calculator in any way you want to find the answers.
- You have 5 minutes to complete this assignment.

Follow the rules given and find the correct answers for the numbers in the list below. Remember, you only have 5 minutes!

Number	Square Root	Square
25.5025		
5580.09		
65.65		
146.41		
0.485		
49.9849		
92.833225		
100.1		
14.44		
81.25		
9.1204		

Thinking Cap



There was a tie between Ron and Carin. To break the tie, they were asked to come up with a way to use the x^{\square} key on their calculator to find the square root of a number. How can you do this? (Hint: Finding the square root of a number is the same as raising the number to the $\frac{1}{2}$ power.)

Square Round Up

Squares and Square Roots

Topic: Finding Squares and Square Roots

Objective: To use the calculator to find squares and square roots.

NCTM Standards: Reasoning, Computation and Estimation

Using the Activity

Students use the calculator in this activity to find the square roots or the squares of numbers.

- The $\sqrt{\square}$ key can be used to find the square root of a number.
- The x^{\square} key can be used to find the square of a number.

Example To determine whether 25.5025 is a perfect square, enter it into the calculator and press the $\sqrt{\square}$ key. If it is a perfect square, the result will end in several zeroes. Since pressing 25.5025 $\sqrt{\square}$ gives us 5.0500000, 25.5025 is a perfect square. Enter 5.05 in the second column of the table.

Assessment To check to be sure 25.5025 is a perfect square, reenter the square root and press the x^{\square} key to square the result. If the result is the actual square root, the square will be the original number. If the result is not the actual square root, the square will be close to the original number. Since pressing 5.05 x^{\square} gives us 25.502500, the answer is correct.

Answers

25.5025: See example.

5580.09: square root = 74.7

65.65: square = 4309.9225

146.41: square root = 12.1

0.485: square = 0.235225

49.9849: square root = 7.07

92.833225: square root = 9.635

100.1: square = 10,020.01

14.44: square root = 3.8

81.25: square = 6601.5625

9.1204: square root = 3.02

Thinking Cap Answers

Enter the number and press x^{\square} 1 b/c 2 $=$.