

Estimating Square Roots Worksheet - Notes

A perfect square is

$1^2 =$	$2^2 =$	$3^2 =$	$4^2 =$	$5^2 =$	$6^2 =$	$7^2 =$	$8^2 =$
$9^2 =$	$10^2 =$	$11^2 =$	$12^2 =$	$13^2 =$	$14^2 =$	$15^2 =$	$16^2 =$

A square root is

$\sqrt{196} =$	$\sqrt{256} =$	$\sqrt{169} =$
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For an integer that is not a perfect square you can estimate a square root.

Example 1: **What are the two whole numbers that are closest to $\sqrt{8}$?**

To solve this, you just need to find the two perfect squares that are directly above and below the number.
(Use a number line if you need to)

Example 2: **What are the two whole numbers that are closest to $\sqrt{135}$?**

Example 3: **What are the two whole numbers that are closest to $\sqrt{200}$?**

Example 4: **What are the two whole numbers that are closest to $\sqrt{192}$?**

Example 5: **What are the two whole numbers that are closest to $\sqrt{37}$?**

Estimating Square Roots Worksheet – Homework

1. What are the two whole numbers closest to $\sqrt{162}$?

2. What are the two whole numbers closest to $\sqrt{95}$?

3. What are the two whole numbers closest to $\sqrt{74}$?

4. What are the two whole numbers closest to $\sqrt{28}$?

5. What are the two whole numbers closest to $\sqrt{60}$?

6. What are the two whole numbers closest to $\sqrt{19}$?

MIXED REVIEW (USE TOOL KIT)

7. A video game is on sale for 25% off. The original price is \$42. What is the Discount? What is the sale price?

8. Solve for x: $3x - 18 = 42$

9. Solve for m: $x - \frac{1}{3} = \frac{2}{7}$

10. Find the distance and airplane travels if it goes 400 miles per hour for 3 hours.

11. Simplify $6^2 \times 6^3 =$

12, Simplify $8^{12} \div 8^7 =$

13. John invested \$400 in a savings account. How much interest will he earn in 5 years if the interest rate is 7%?

14. How do you find the slope of a line on a graph?

15. What is the Pythagorean Theorem used for? What is the formula?