

## 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  $\sqrt{19}$  ?

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