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

$\sqrt{196} =$	$\sqrt{256} =$	$\sqrt{169} =$

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 $\sqrt{95}$?

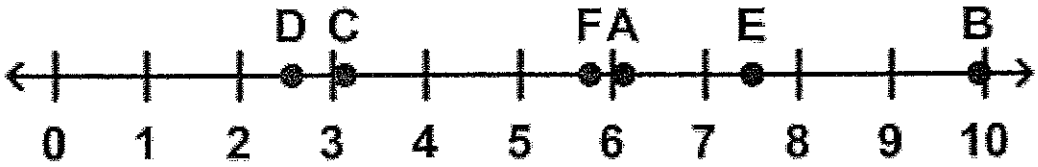
3. What are the two whole numbers closest to $\sqrt{74}$?

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 $\sqrt{19}$?

7. Which letter on the number line below corresponds to each square root?



$\sqrt{56}$ _____

$\sqrt{10}$ _____

$\sqrt{39}$ _____

$\sqrt{7}$ _____

$\sqrt{32}$ _____

$\sqrt{98}$ _____