# Day 3 – Estimating Square Roots – Practice

1. Estimate the square root of each number to the two whole numbers that it lays between. Then state if it is closer to the lower or high whole number.

a. The square root of $\sqrt{11}$ is between $\sqrt{9}$ (3) & $\sqrt{16}$ (4). It is closer to 3.

b. The square root of $\sqrt{32}$ is between $\sqrt{25}$ (5) & $\sqrt{36}$ (6). It is closer to 6.

c. The square root of $\sqrt{85}$ is between $\sqrt{81}$ (9) & $\sqrt{100}$ (10). It is closer to 9.

d. The square root of $\sqrt{62}$ is between $\sqrt{49}$ (7) & $\sqrt{64}$ (8). It is closer to 8.

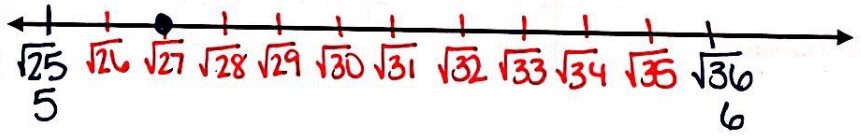
2. Using a number line, calculate a more exact approximation of the following radicals:

a. $\sqrt{14}$ $3\frac{5}{7} \approx 3.8$


b. $\sqrt{41}$ $6\frac{5}{13} \approx 6.4$

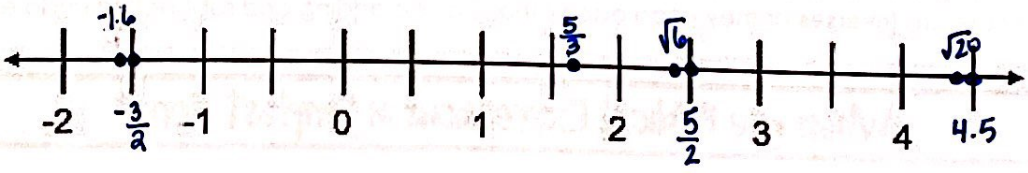

c. $\sqrt{3}$ $1\frac{2}{3} \approx 1.7$


d. $\sqrt{27}$ $5\frac{2}{11} \approx 5.2$




3. Without using a calculator, graph the numbers in order on the number.

-1.6 $\frac{5}{3} = 1\frac{2}{3}$ $\sqrt{6} \approx 2.4$ 4.5 $-\frac{3}{2} = -1.5$ $\sqrt{20} \approx 4.4$ $\frac{5}{2} = 2.5$




4. After a crack in the sheetrock was repaired on a square wall behind the dining room table, Mrs. Gonzalez decided to go ahead and paint the wall. The area of the wall was 78 ft². What was the estimated length of one side of the wall?

A. 7.8 ft C. 9.2 ft
B. 8.3 ft (D.) 8.8 ft

$\sqrt{78}$ between $\sqrt{64}$ (8) and $\sqrt{81}$ (9)

closer to 9