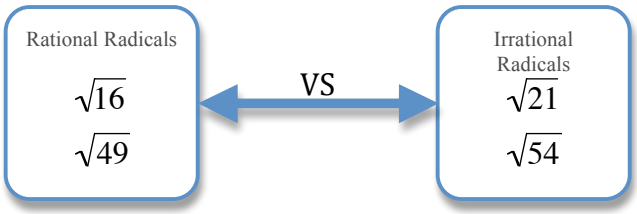
1.4 Rational Approximations for Irrational Numbers Using a Number Line



List of Perfect Squares

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

Without using a calculator, approximate the value of $\sqrt{39}$ to the nearest whole number.

Class Notes – Estimate the values of the each radical expression to the nearest whole number using a number line.

LP#1 $\sqrt{20}$	$\sqrt{52}$	$\sqrt{93}$
LP#2 $\sqrt{14}$	$\sqrt{2}$	$\sqrt{46}$
LP#3 $\sqrt{30}$	$\sqrt{125}$	$\sqrt{200}$

Review - Approximate the values of the each radical expression to the nearest whole number utilizing a number line.

R#1 $\sqrt{58}$	$\sqrt{109}$	$\sqrt{40}$
R#2 $\sqrt{32}$	$\sqrt{260}$	$\sqrt{10}$

R#3 $\sqrt{3}$	$\sqrt{145}$	$\sqrt{17}$

Homework

Approximate the values of the each radical expression to the nearest whole number utilizing a number line.

1) $\sqrt{13}$ **2)** $\sqrt{53}$ **3)** $\sqrt{300}$ **4)** $\sqrt{85}$ **5)** $\sqrt{41}$

6) $\sqrt{61}$ **7)** $\sqrt{182}$ **8)** $\sqrt{22}$ **9)** $\sqrt{111}$ **10)** $\sqrt{97}$

11) $\sqrt{525}$ **12)** $\sqrt{219}$ **13)** $\sqrt{19}$ **14)** $\sqrt{5}$ **15)** $\sqrt{405}$

16) $\sqrt{1250}$ **17)** $\sqrt{10}$ **18)** $\sqrt{60}$ **19)** $\sqrt{198}$ **20)** $\sqrt{740}$

Synthesis

21) If the $\sqrt{1} = 1$ and $\sqrt{9} = 3$, then $\sqrt{1/9} = ?$

22) If the $\sqrt{1} = 1$ and $\sqrt{36} = 6$, then $\sqrt{1/36} = ?$

23) Evaluate $\sqrt{1/64} =$

24) Evaluate $\sqrt{1/100} =$

25) Evaluate $\sqrt{1/4} =$

26) Find two radical expressions that the mixed number $5\frac{31}{100}$ falls in-between.

27) Find two radical expressions that the mixed number $11\frac{3}{25}$ falls in-between.