

Warm up:

Identify the follow numbers as rational or irrational.

- 1) 0.3842 *rational* 5) $\sqrt{60}$ *irrational*
2) 9 *rational* 6) $\sqrt{81}$ *rational*
3) 0 *rational* 7) $5.62\overline{62}$ *rational*
4) $-\frac{2}{5}$ *rational* 8) $\pi + 2$ *irrational*
5 $\frac{62}{99}$

HW Solutions



Write the following decimal as a fraction.

$0.7\bar{7}$

$$\frac{7}{9}$$

Write the following decimal as a fraction.

$$0.\overline{777} - 0.3$$

$$\frac{7}{9} - \frac{3}{10}$$

$$x = 0.4\overline{77}$$

$$10x = 4.\overline{77}$$

$$100x = 47.\overline{77}$$

$$100x - 10x = 47.\overline{77} - 4.\overline{77}$$

$$\frac{90x}{90} = \frac{43}{90}$$

$$x = \frac{43}{90}$$

$$0.04\overline{77}$$

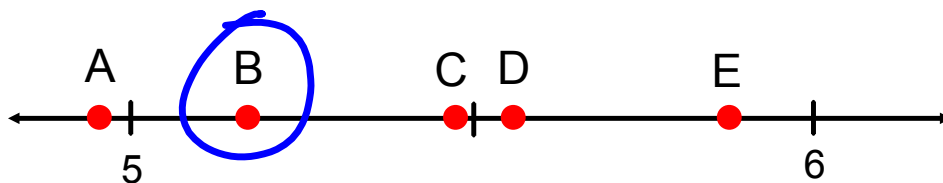
$$100x = 4.\overline{77}$$

$$1000x = 47.\overline{77}$$

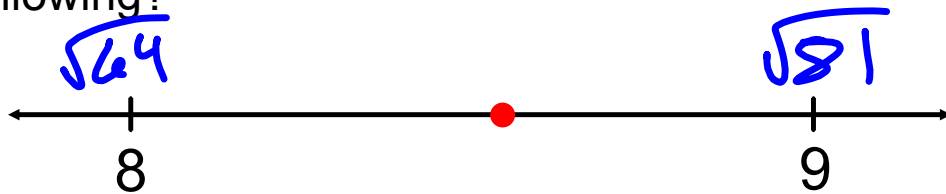
$$900x = 43$$

Which point is the best estimate of $\sqrt{27}$?

$\sqrt{25}$ $\sqrt{36}$



The point graphed on the number line best represents which of the following?



A ~~$\sqrt{68}$~~

B $\sqrt{73}$

C $\sqrt{79}$

D ~~$\sqrt{84}$~~

Estimate to the nearest whole number.

$$\sqrt{23} \approx 5$$

Estimate to the nearest hundredth.

$$\sqrt{16} \quad \sqrt{20} \quad \sqrt{25}$$

$$4.47$$

$$\begin{array}{r} 4.4 \\ \times 4.4 \\ \hline 19.36 \end{array}$$

$$\begin{array}{r} 4.5 \\ \times 4.5 \\ \hline 20.25 \end{array}$$

$$\begin{array}{r} \sqrt{20} \\ \cdot 64 \quad 20 \quad \cdot 25 \end{array}$$

$$\begin{array}{r} 4.47 \\ \times 4.47 \\ \hline 19.9809 \end{array}$$

$$\begin{array}{r} 4.48 \\ \times 4.48 \\ \hline 20.0704 \end{array}$$

$$\begin{array}{r} 4.475 \\ \times 4.475 \\ \hline 20.025625 \end{array}$$

Compare the two numbers using a $<$, $>$, or $=$ sign.

$$\sqrt{45} \text{ ___ } 6.5923014\dots$$

Order from least to greatest.

$$\pi - 1, \quad \sqrt{8}, \quad 2\frac{1}{3}, \quad 2.285, \quad 2.1\bar{1}$$

Write the following decimal as a fraction.

$0.36\overline{36}$

