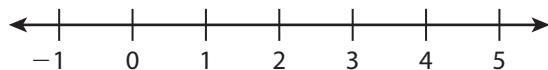# Estimating the Value of Irrational Expressions
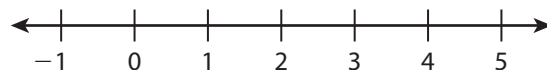
➤ **Plot the approximate locations of the given values on the number line. Then order the numbers by completing the comparison statement.**
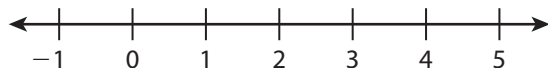
1 $\sqrt{2}, \sqrt{5}, \frac{\pi}{2}$

$$\xleftarrow{\qquad} \begin{array}{ccccccc} | & | & | & | & | & | & | \\ -1 & 0 & 1 & 2 & 3 & 4 & 5 \end{array} \xrightarrow{\qquad}$$

_____ < _____ < _____

2 $\frac{2\pi}{3}, 2\sqrt{3}, \pi - 2$

$$\xleftarrow{\qquad} \begin{array}{ccccccc} | & | & | & | & | & | & | \\ -1 & 0 & 1 & 2 & 3 & 4 & 5 \end{array} \xrightarrow{\qquad}$$

_____ < _____ < _____

3 $\frac{\pi}{4}, \sqrt{2}, \pi - 4$

$$\xleftarrow{\qquad} \begin{array}{ccccccc} | & | & | & | & | & | & | \\ -1 & 0 & 1 & 2 & 3 & 4 & 5 \end{array} \xrightarrow{\qquad}$$

_____ < _____ < _____

4 $\frac{\pi}{3}, 3\sqrt{2}, \pi$

$$\xleftarrow{\qquad} \begin{array}{ccccccc} | & | & | & | & | & | & | \\ -1 & 0 & 1 & 2 & 3 & 4 & 5 \end{array} \xrightarrow{\qquad}$$

_____ < _____ < _____

5 $\sqrt{7}, \sqrt{5} - 2, \sqrt{3} - 1$

$$\xleftarrow{\qquad} \begin{array}{ccccccc} | & | & | & | & | & | & | \\ -1 & 0 & 1 & 2 & 3 & 4 & 5 \end{array} \xrightarrow{\qquad}$$

_____ < _____ < _____

6 $-\frac{\pi}{6}, \frac{\pi}{3}, \frac{\pi}{2} - 1$

$$\xleftarrow{\qquad} \begin{array}{ccccccc} | & | & | & | & | & | & | \\ -1 & 0 & 1 & 2 & 3 & 4 & 5 \end{array} \xrightarrow{\qquad}$$

_____ < _____ < _____
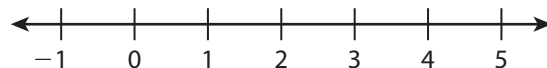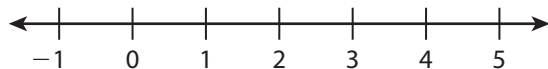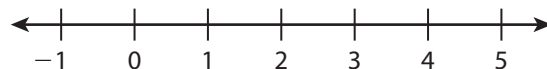
7 What are two irrational numbers that fall between 2 and 3?

GRADE 8