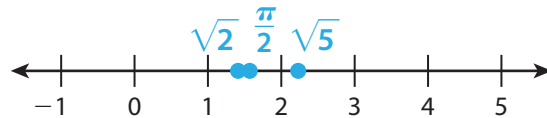




Estimating the Value of Irrational Expressions

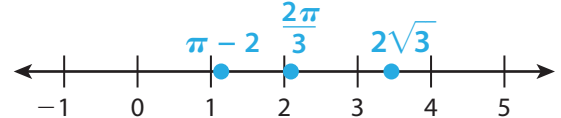
- Plot the approximate locations of the given values on the number line. Then order the numbers by completing the comparison statement.

1 $\sqrt{2}, \sqrt{5}, \frac{\pi}{2}$



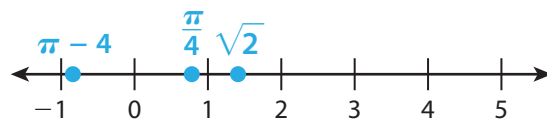
$$\sqrt{2} < \frac{\pi}{2} < \sqrt{5}$$

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



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

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



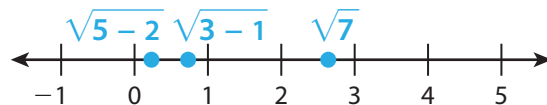
$$\pi - 4 < \frac{\pi}{4} < \sqrt{2}$$

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



$$\frac{\pi}{3} < \pi < 3\sqrt{2}$$

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



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

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



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

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

Answers will vary. Possible answer: $\sqrt{5}$ and $\sqrt{6}$