

Example:

Find the magnitude of the vector \mathbf{v} represented by PQ, where $P = (-3, 4)$ and $Q = (-5, 2)$

$$|\mathbf{v}| = \sqrt{(-5 - -3)^2 + (2 - 4)^2}$$

$$|\mathbf{v}| = \sqrt{8}$$

$$|\mathbf{v}| = 2\sqrt{2}$$