



We use Euclidean norm: $\|\mathbf{x}\| = \sqrt{x_1^2 + x_2^2}$

$$\|\mathbf{u}\| = \sqrt{10} \approx 3.16$$

$$\|\mathbf{v}\| = \sqrt{5} \approx 2.24$$

$$\|\mathbf{u} + \mathbf{v}\| = 5$$

Triangle inequality:

$$5 = \|\mathbf{u} + \mathbf{v}\| \leq \|\mathbf{u}\| + \|\mathbf{v}\| \approx 3.16 + 2.24 = 5.4$$