

Vectors

Wednesday, February 15, 2017 1:17 PM

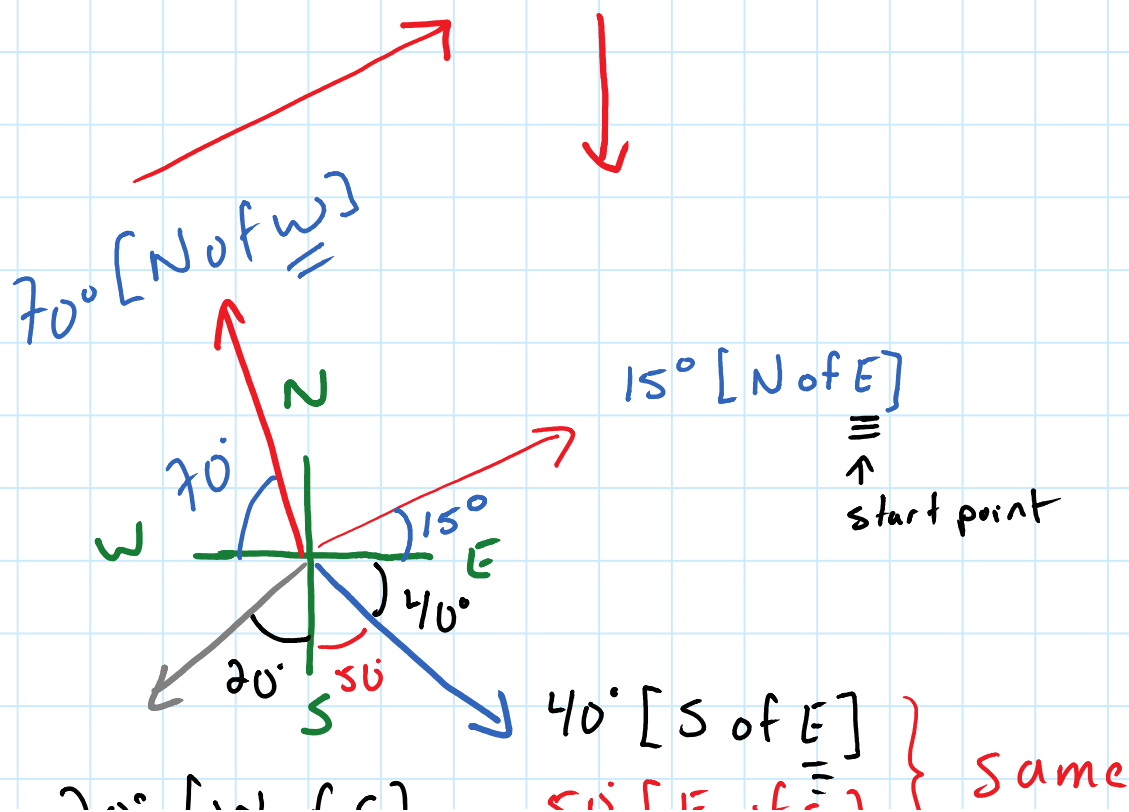
Measured values can be divided into 2 categories

Scalar: Magnitude (size) *time, temp., speed, distance, energy, power*

Vector: Magnitude & Direction

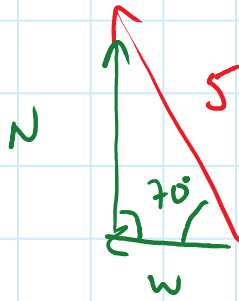
disp., vel., acc., force, momentum, weight

The magnitude of the vector can be represented by an arrow's length, and the direction by the direction the arrow points



20° [W of S] \Rightarrow 70° [E of N] } same

Components



$$\sin 70^\circ = \frac{O}{H}$$

$$(5) \sin 70^\circ = \frac{N}{5 \text{ km}} (5)$$

$$5 \sin 70^\circ = N = 4.7 \text{ km}$$

$$\cos 70^\circ = \frac{W}{5}$$

$$5 \cos 70^\circ =$$

$$1.7 \text{ km}$$