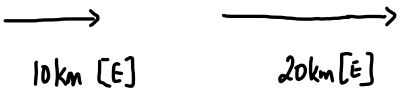
Vectors & Directions

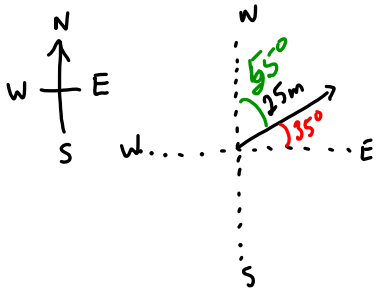
Recall that a vector has both size (magnitude) and direction

Length of the vector is reflective of the size (i.e. to scale)



So how do we express the direction?

① Compass



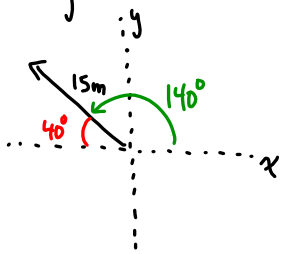
$\vec{\Delta d}$ = 25m [E 35° N]

$\vec{\Delta d}$ = 25m [35° N of E]

$\vec{\Delta d}$ = 25m [N 55° E]

$\vec{\Delta d}$ = 25m [55° E of N]

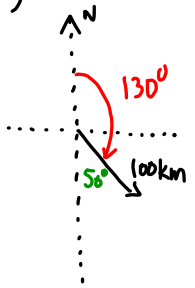
② RCS - rectangular coordinate system



* All angles are measured ccw from the + x-axis.

$\vec{\Delta d}$ = 15m 140° RCS

③ Azimuth or Bearing



* Measure the angle CW from north

$\vec{\Delta d}$ = 100km, azimuth 130°

(130°T)

Vector has a tail and a head