Scalars vs Vectors

Being able to distinguish between scalars and vectors is an important skill to have in physics.

Definitions:

Scalar: A scalar is a quantity that has a magnitude but no direction.

Vector: A vector is a quantity that has a magnitude and a direction or position relative to some point.

Symbols:

Scalars are shown without any special symbols, simply the variable: v

Vectors are shown (depending on the professor) to have a "hat" or "arrow": $\bar{v}, \vec{v}, \overrightarrow{v}$

Common Symbols:

Scalars	Vectors
Distance (d)	Displacement ($\overline{d}$)
Speed (v)	Velocity ($\overline{v}$)
Energy (E)	Acceleration ($\overline{a}$)
Temperature (T)	Force ($\overline{F}$)
Mass (m)	Weight ($\overline{F}_g$)
Work (W)	Momentum ($\overline{p}$)