Eliza

NOTES Mod. #9

1-24-23

Meteorology: Study of weather.

Mechanics: Study of Motion, Forces, & Energy.

God = "Original Mover"

Position: if the position of an object changes, we know that the object is in motion.

Position must always be given relative to something else.

Reference Point - a point at which position is measured.

All motion is relative!

SPEED = $\frac{\text{distance traveled}}{\text{time traveled}}$

another pg.!!

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Exp 9.1 : Speed = $\frac{78 \text{ miles}}{1.2 \text{ hours}} = 65 \frac{\text{miles}}{\text{hour}}$

$\frac{78 \text{ miles}}{1} \times \frac{1609 \text{ meters}}{1 \text{ mile}} = 125,502$ meters

$\frac{1.2 \text{ hrs}}{1} \times \frac{3,600}{1 \text{ hr}} = 4,320$ seconds

Speed = $\frac{125,502 \text{ meters}}{4,320 \text{ seconds}} = 29.1 \frac{\text{meters}}{\text{seconds}}$

Keep units with their #'s.

Vector quantity - (contains directional info)

Scalar quantity - (doesn't contain directional info)

*When objects travel in the same direction, their relative speed is the difference between their individual speeds. When they travel in opposite directions, their relative speed is the sum of their individual speeds.

Acceleration: The rate of change in velocity.

free fall

♫ free falling ♫

- Air resistance