

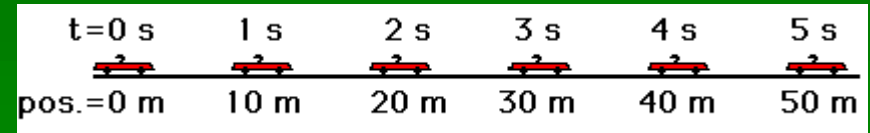
# Lesson 4

# Describing Kinematics

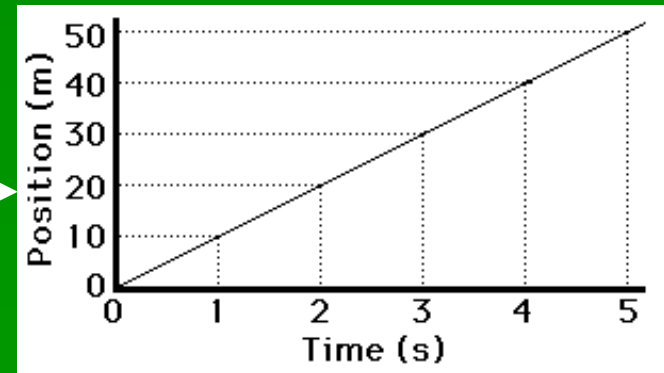
Can you read it?

**VELOCITY**  
EQUALS  
**DISTANCE**  
DIVIDED BY  
**TIME**

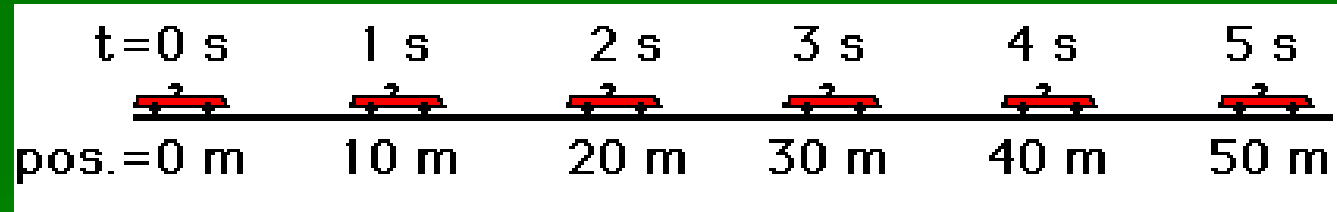
$$v = \frac{\Delta x}{\Delta t}$$



$$\text{Average Velocity} = \frac{\Delta \text{position}}{\text{time}} = \frac{\text{displacement}}{\text{time}}$$



## LINEAR UNIFORM MOTION



- Why is there MOTION?
- Why is it a LINEAR motion?
- Why is it a UNIFORM motion?
- Why ISN'T it a uniformly accelerated motion?
- How FAST is it travelling?

Hint:

Trajectory

Constant speed

Change position

Changing speed

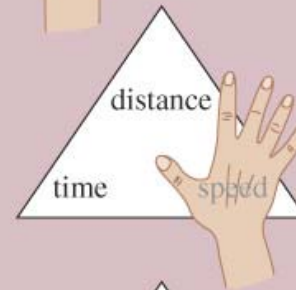
The speed triangle shows you how to create formulae



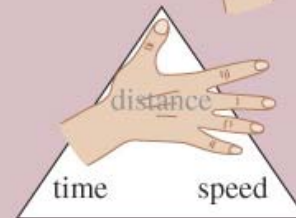
Only UNIFORM MOTION



$$\text{time} = \frac{\text{distance}}{\text{speed}}$$

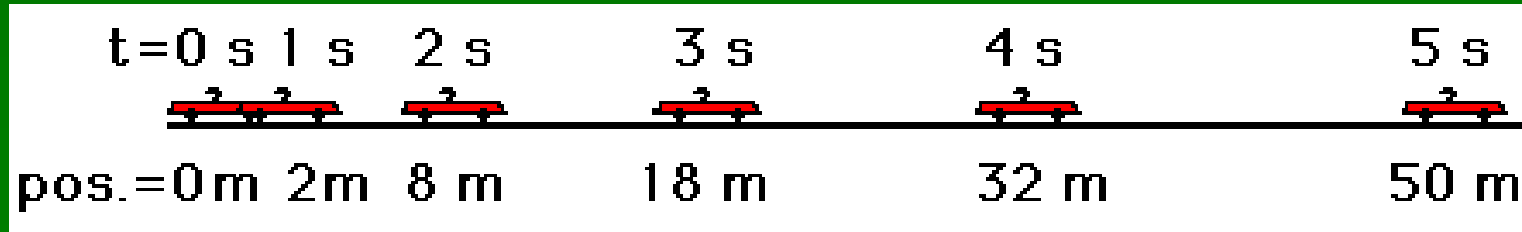


$$\text{speed} = \frac{\text{distance}}{\text{time}}$$



$$\text{distance} = \text{time} \times \text{speed}$$

*LINEAR UNIFORMLY ACCELERATED MOTION* • • • • •



- Why is there MOTION?
- Why is it a LINEAR motion?
- Why is it NOT a UNIFORM motion?
- Why is it a UNIFORMLY ACCELERATED MOTION?
- Is the ACCELERATION zero or constant?

Hint:

Trajectory

Constant speed

Change position

Changing speed