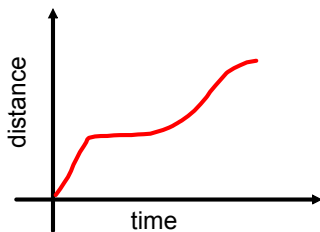# Graphs of Motion

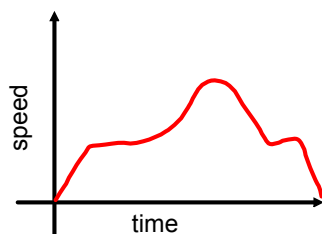distance - short for 'distance travelled'

speed - distance/time   or the rate at which
distance increases

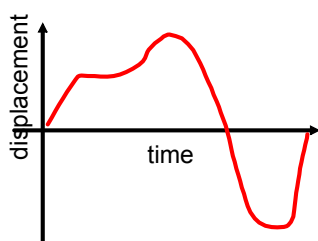displacement - distance moved in a direction

(usually shown with + or -)

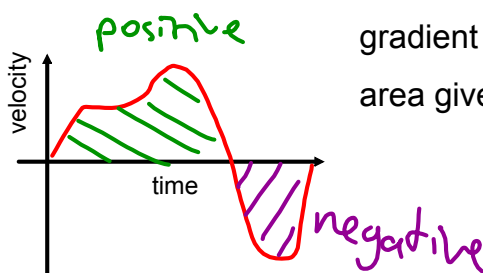velocity - speed in a given direction.

gradient gives speed

graph cannot slope downwards - you
cannot decrease the distance you have
travelled

speed can't be negative

area under line gives distance travelled

gradient gives acceleration

the graph can slope downwards, but
cannot go below the x-axis

gradient gives you velocity

gradient gives you acceleration

area gives you displacement

positive

negative