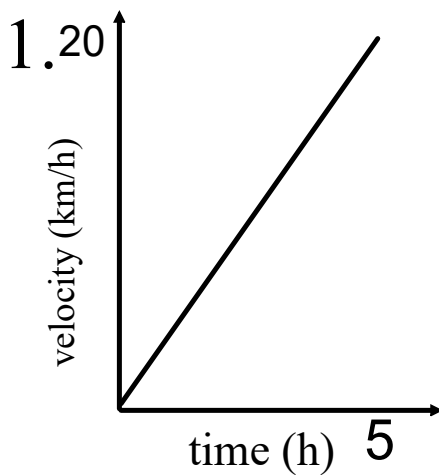# March 20,2019

!!!!Reminder Test Tuesday on Chp 10!!!

Warm-Up

Calculate the distance and acceleration for the following:

1.

velocity (km/h)

time (h) 5

$d= \dfrac{vt}{2}$

$= (20)(5)/2$

$= 50km$

$a= \dfrac{v_f - v_i}{t_2 - t_1}$

$= \dfrac{20km/h - 0km/h}{5h - 0h}$

Answers pg 393 #4b,5b,6c

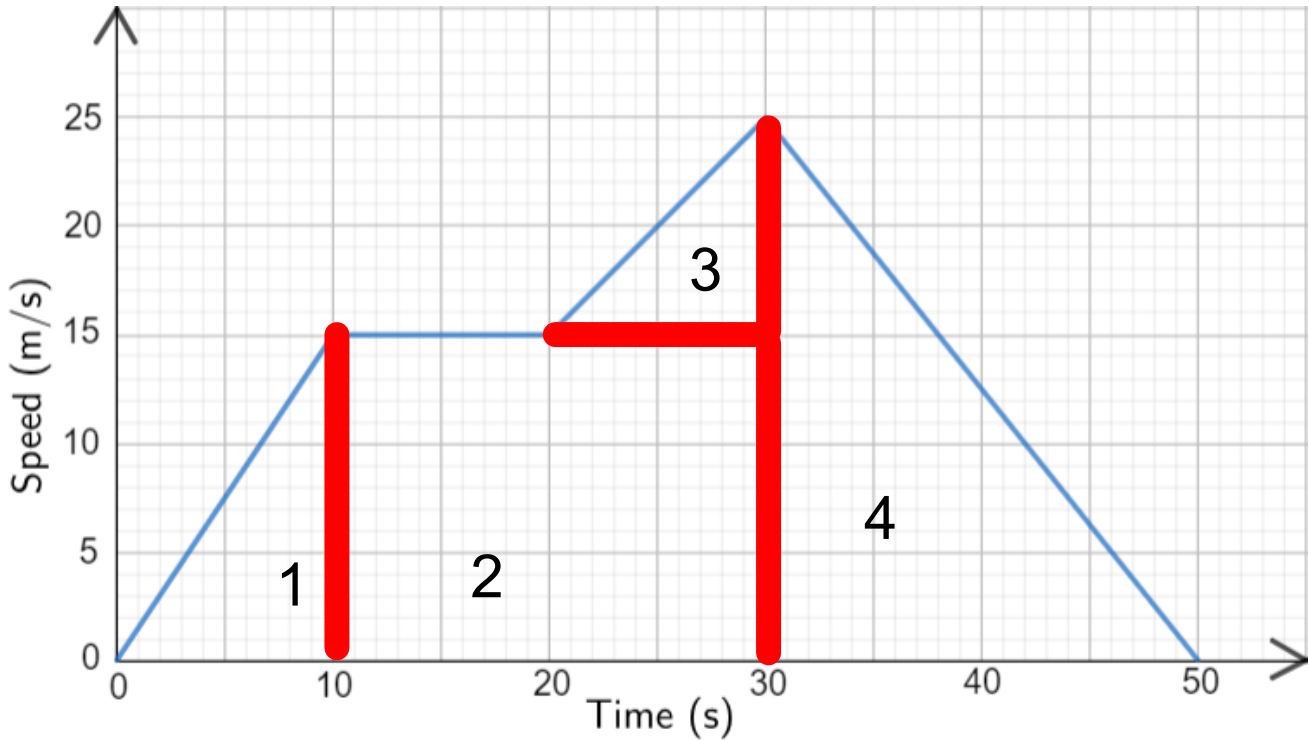4b) the area under the graph of a speed time graph communicates the distance travelled.

5b) Distance (Cathryn) = $\underline{vt}$ = $\underline{(6m/s)(100s)}$ = 300m
 2 2

 Distance (Keir) = $\underline{vt}$ = $\underline{(4m/s)(100s)}$ = 200m
 2 2

6c) Distance (Cheetah) = $\underline{vt}$ = $\underline{(20m/s)(2s)}$ = 20m
 2 2

Example:

Bicycle Trip

Calculate the total distance travelled by the bicycle.

D_1 = 1/2 vt

   = 1/2 (15)(10)

   = 75m

D_2 = vt

   = (15)(20)

   = 300m

D_3 = 1/2vt

   =1/2 (10)(10)

   = 50m

D_4 = 1/2 vt

   = 1/2 (25)(20)

   = 250m
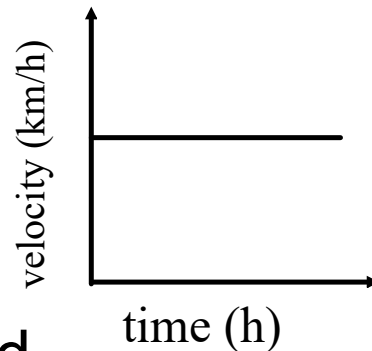
D_{total} = 75 + 300 + 50 +250

   = 675m

Review Finding Distance/Acceleration
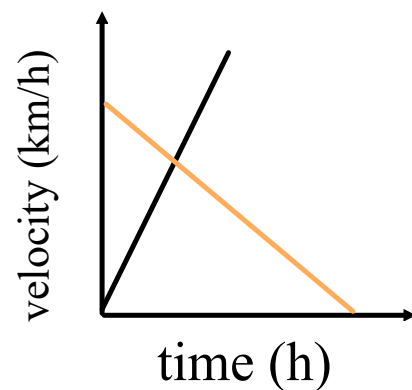
If shape is a square (acceleration zero) use:
D = v x t

velocity (km/h)

time (h)

If shape is a triangle (speed increasing or decreasing) use:

$$D = \frac{v \times t}{2}$$

velocity (km/h)

time (h)

If finding the acceleration find the slope of the line by using the formula

$$a = \frac{v_f - v_i}{t_2 - t_1}$$

Complete Graphing Acceleration and Calculating Distance WS