

Thursday April 14, 2011

answers pg 358 #3cd,4,7bc,8,9

Quiz

## Warm -Up

If it takes Ashley 3 s to run from the batters box to first base at an average speed (velocity) of 6.5m/s, what is the distance she covers in that time?



## Pg 358 #3cd,4,7bc,8,9

3. c)  $t = 2.1 \text{ h}$        $d = (v)(t)$   
 $v = 3.6 \text{ km/h}$        $d = (3.6 \text{ km/h})(2.1 \text{ h})$   
 $d = 7.6 \text{ km}$

Mary travelled 7.6km

d)  $d = 25 \text{ km}$        $t = \frac{d}{v} = \frac{25 \text{ km}}{5.2 \text{ km/h}} = 4.8 \text{ h}$   
 $v = 5.2 \text{ km/h}$   
 $t = ?$

The hiker would take 4.8h

4.  $v = 90.0 \text{ km/h}$        $d = vt$   
 $t = 2.50 \text{ h}$        $= (90.0 \text{ km/h})(2.50 \text{ h})$   
 $= 225 \text{ km}$

The distance travelled by the car is 225 km

7b.  $v = 85.4 \text{ km/h}$        $t = \frac{d}{v} = \frac{6670 \text{ km}}{85.4 \text{ km/h}} = 78.1 \text{ h}$   
 $d = 6670 \text{ km}$   
 $t = ?$

It would take the Orbiter 78.1 h to cross the Atlantic ocean.

c)  $t = 18 \text{ h}$        $d = v t$   
 $v = 210 \text{ km/h}$        $d = (210 \text{ km/h})(18 \text{ h})$   
 $d = ?$        $d = 3.8 \times 10^3 \text{ km}$

The balloon travelled  $3.8 \times 10^3 \text{ km}$ .

8.a)  $d = 604 \text{ m}$   
 $v = 341 \text{ m/s}$

$$t = \frac{d}{v}$$

$$t = \frac{604\text{m}}{341\text{m/s}}$$

$$t = 1.77 \text{ s}$$

b)  $341 \text{ m/s} \times 3.6 = 1.23 \times 10^3 \text{ km/h}$

9.  $v = 5.0 \text{ m/s}$

$$v = 4.5 \text{ m/s}$$

subtract the two velocity's

$$5.0\text{m/s} - 4.5\text{m/s} = 0.5\text{m/s}$$

$$t = 10\text{min}$$

$$d = vt$$

$$= (0.5\text{m/s}) (600\text{s})$$

$$= 300 \text{ m} \quad \text{or} \quad 3.0 \times 10^2 \text{ m}$$

The distance between the runners after 10min is 300m.

convert min to seconds

$$10 \text{ min} \quad \times \quad \frac{60\text{sec}}{1\text{min}} = 600 \text{ s}$$

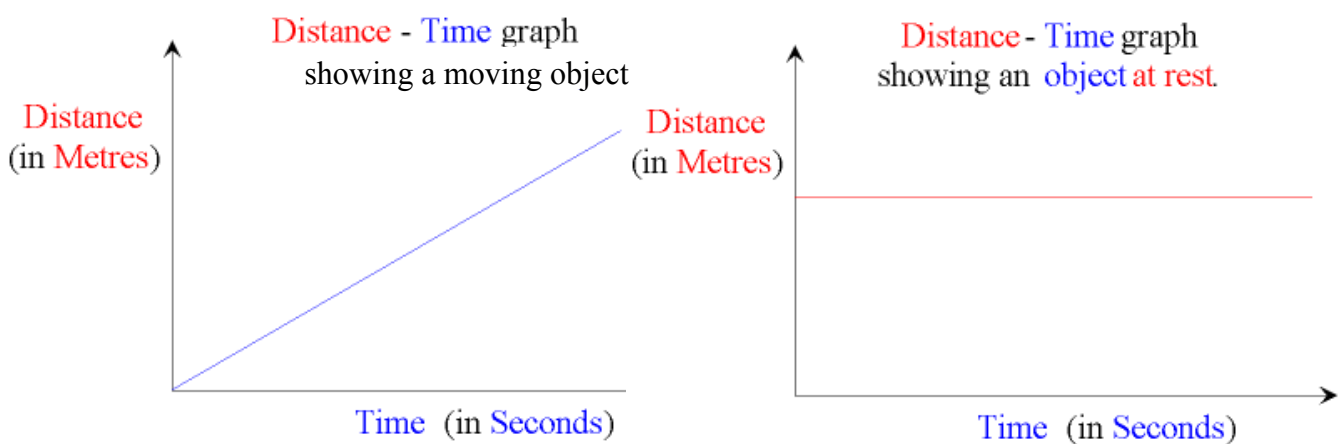
# Quiz

# Distance- Time Graphs

shows the relationship between distance and time.

distance is plotted on the y axis and is the dependent variable

time is plotted on the x axis and is the independent variable



## Attachments

---

average speed ex 2 answers.notebook

average speed ex 1.notebook