Thursday, October 4/12
Science 10

Announcements

1. Understanding Concepts - Page 358: #3-6, 8

*Page 358: #7, 9
Page 359: #10

→ Quiz - Next Thursday
Average Velocity Problems

2. Section 9.6 - Investigation: Balloon Car Contest (Page 360)

Roles - at least one per team member — 2
Table - Trial #, Distance (m), Time (s), Comments — 12
- at least three trials must be included in the chart — 4
Presentation - Car's Features and Performance — 2
Participation

20

*Pictures of the original design and modifications might be helpful. Your team will have to present your car, its performance and features to the class on Friday, October 5/12.

Trial #	Distance (m)	Time (s)	Comments
1			
2			
3			

Problems.

1. list variables $v_{ave} =$ $t =$ $d =$ } 1

$v_{ave} \Rightarrow \frac{km}{h}, \frac{m}{s}$

$d \Rightarrow km, m$

$t \Rightarrow h, s$

2. $v_{ave} = \frac{d}{t}$ ①

3. rearrange formula ①

4. substitute values.

$v_{ave} = \frac{10km}{2h}$ <- ①

5. $v_{ave} = 5\frac{km}{h}$ } SD + unit ①

6. W.S. $\Rightarrow$ The average speed is $5\frac{km}{h}$. ①

$5\frac{km}{h}$ ①

p. 358-359

3. a) $5.2 \frac{km}{h}$ c) 7.6 km

b) $14 \frac{km}{h}$ d) 4.8 h

#4. 225 km

#5. $1 \frac{m}{s} \times \frac{3600 s}{1 h} \times \frac{1 km}{1000 m} = 3.6 \frac{km}{h}$

$$1 \frac{m}{s} = 3.6 \frac{km}{h}$$

#6. a) $26 \frac{m}{s}$

b) $76 \frac{km}{h}$

#6. a) 1.77 s

b) $1227.6 \frac{km}{h} \Rightarrow 1.23 \times 10^{3} \frac{km}{h}$

3SD

$\Rightarrow$ { $341 \times 3.6 = 1227.6$ 2nd s }

P. 358

#7. a) $85.4 \frac{km}{h}$

b) 78.1h

c) $3.8 \times 10^3 km$

#9. $3.0 \times 10^2 m$

#10. a) 2.0s

b) Time ↑ as Value ↓.

c) $7.7 \frac{km}{s}$, $2.8 \times 10^4 \frac{km}{h}$