***Review for Test -*If you can do the following you will have no trouble doing the test on Friday May 13, 2011**

**Part 1: Significant Digits**

1. Round the following values to a certainty of three significant digits.
   1. 50.704 cm d. 0.06909 kg
   2. 8400 min e. 4.2068 s
   3. 0.066 mm
2. Complete the following calculation.  **MAKE SURE YOUR ANSWER HAS THE CORRECT NUMBER OF SIGNIFICANT DIGITS.**
   1. 8.73 km x 2.1 km = d. 22.70 cm/ 0.97 cm =
   2. 7.465 s + 3.5 s + 210 = e. 63.0067 - 5.42 =

f. 22.7 x 10 =

**Part 2: Rearranging equations**

a. y= mx + b , solve for x

b. Pv = nrt , solve for r

c. c= 2a + b solve for a

4

d. v = d solve for t

t

**Part 3: Show all work and record all answers in correct significant digits**

1. Calculate the missing quantities in the table below.

|  |  |  |
| --- | --- | --- |
| v | d | t |
|  | 8.2 m | 4.0 s |
| 62.0 m/s |  | 0.1 s |
| 50.0 m/s | 25.0 m |  |

2. Assuming an average speed of 900 km/h, an airplane has enough fuel to fly for

8.5 h. How far will the airplane fly in this time?

3. The circumference of Earth at the equator is approximately 40 000 km. A supersonic jet can fly at an average speed of 1500 m/min. How long will it take the aircraft to travel around the equator, assuming it has enough fuel?

4. Jim drove 8 hours per day for 17.6 days in order to get back home for spring break. His average speed was 1.5 km/ min. How far did he travel?

5. Convert the following using the conversion factor method

1. 66 km/h to m / s
2. 107 km/d to km/h
3. 820 m/s to km/h

**Part 4: Distance- time graphs**

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