6/24/14

Name: Key!

Date: Sept 5, 2014

Physics 20 Unit 0 Assignment Part A:

1. Unit Conversion. **(0.5 marks each)**

a. Convert 36 km to m.

36000 m

b. Convert 45 g to kg.

0.045kg

c. Convert 85 hm to m.

85×10^2 m 8.5×10^3 m

8500 m

d. Convert 50 mg to kg.

0.000050 kg

e. Convert 54 mm to m

54×10^{-3} m

0.054 m

f. Convert 2.5×10^{15} nm to m

2.5×10^6 m

2. Significant digits - state the number of significant digits in these measurements. **(0.5 marks each)**

a) 3405 - 4

b) 0.042 - 2

c) 0.000 56 - 2

d) 0.0020 - 2

e) 1.002×10^3 - 4

f) 0.002501×10^{-2} - 4

3. Evaluate. Record your answer to the correct number of sig digs. **(0.5 marks each)**

a) 10.0 x 5.3 = 53

b) 0.10 x 122 = 12

c) 50.5 x 0.62 = 31

d) 100 / 45 = 2.2

e) 0.5 / 24.5 = 0.02

f) 25 x 1.5 = 37.5 ≈ 38

g) 0.000 2 x 2500 = 0.5

i) 2230 / 3.00 = 743

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4. Using three significant figures for each, express the following in scientific notation: **(0.5 marks each)**

a) 0.008 051

8.05×10^{-3}

c) 0.0051365

5.14×10^{-3}

b) 6 100 000

6.10×10^{6}

d) 0.000 009 40

9.40×10^{-6}

5. Change each of the following back to its non-exponential form: **(0.5 marks each)**

a) 7.64×10^{-6}

0.00000764

c) 3.8×10^{-2}

0.038

b) 1.00×10^{-3}

0.00100

d) 2.19×10^{9}

2190000000

Bonus Questions: Answer only **ONE!!!**

Fair Bonus Question: What three countries do not use the metric system? 'merica, Myanmar, Liberia.

Unfair Bonus Question: What contribution did the man whose face appears on this assignment have on the metric system in Canada?

LD Industries
Dept. of GST

Mulroony, Stopped implimentation of the metric system.