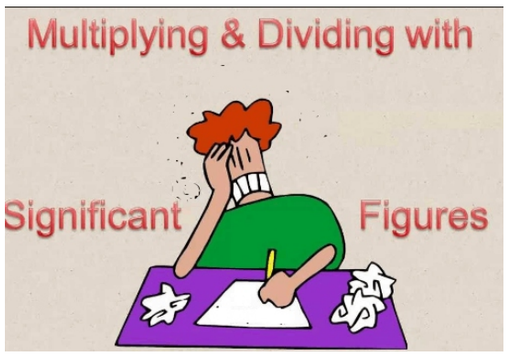
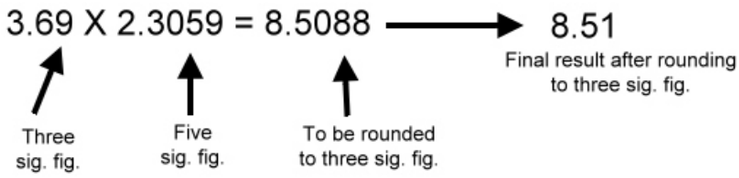
SCIENCE 1206 **UNIT 3: MOTION**
WORKSHEET #5: MULTIPLYING AND DIVIDING SIGNIFICANT DIGITS

Rule:

When multiplying and dividing significant figures. the answer will contain the same number of digits as in the original number with the least number of digits



Example :



PART A: MULTIPLE CHOICE _____ = **20**

1. Solve: 1.23 m x 0.89 m = ?

   (A) 1.0947 m^2
   (B) 1.0 m^2
   (C) 1.09 m^2
   (D) 1.1 m^2

2. Solve: 923 g divided by 20 312 cm^3 = ?

   (A) 0.04 g/cm^3
   (B) 0.0454 g/cm^3
   (C) 0.045 g/cm^3
   (D) 4.00 x 10^{-2} g/cm

3. Multiply the following three numbers and report your answer to the correct number of significant figures:

   0.020 cm x 50 cm x 11.1 cm = ?

   (A) 10 cm^3
   (B) 11 cm^3
   (C) 11. cm^3
   (D) 11.1 cm^3

4. Divide the following three numbers and report your answer to the correct number of significant figures:

0.530 g / 0.1010 mL = ?

(A) 5.2 g/mL
(B) 5.3 g/mL
(C) 5.25 g/mL
(D) 5.248 g/mL

5. How many significant figures should the answer have if we multiply: 5.60 m/s x 3.2 s?

(A) 2
(B) 3
(C) 4
(D) 5

PART B: WRITTEN RESPONSE **[15]**

It's your turn ! Compute the answers with the correct number of significant figures.

		ANSWER	CORRECT # OF SIG FIG
1.	0.0023 g x 0.4800 g =		
2.	2.73 N ÷ 458 N =		
3.	18.00 cm x 351 cm =		
4.	546 mol ÷ 97.25 mol =		
5.	827 cm x 0.01 cm =		
6.	101 ml x 82.06 ml =		
7.	12.00 m/s x 16.0 s =		
8.	801 m ÷ 89 s =		
9.	305.75 L ÷ 546 g =		
10.	2.745m x 3.65 m =		
11.	3.72 kg x 4m/s =		
12.	432 km ÷ 31 hr =		
13.	20.0 kg x 0.0021 m/s^2 =		
14.	98 m/ 12.00 s =		
15.	467 km/ 21hr =