**Significant Figures Worksheet #2**

1. State the number of significant digits in each measurement.

1)    **2804 m**           2)   **2.84 km**               3)   **5.029 m**

4)   **0.003068 m**         5)   **4.6 x 105 m**        6)   **4.06 x 10-5 m**

7)   **750 m**              8)  **75 m**                          9)   **75,000 m**

10)   **75.00 m**      11)  **75,000.0 m**       12)  **10 cm**

2. Round the following numbers as indicated:

To four figures:

**3.682417 21.860051 375.6523 112.511 45.4673**

To one decimal place:

**1.3511 2.473 5.687524 7.555 8.235**

To two decimal places:

22.494 79.2588 0.03062 3.4125 41.86632

3. Solve the following problems and report answers with appropriate number of significant digits.

1)      **6.201 cm + 7.4 cm + 0.68 cm +12.0 cm =**

2)     **1.6 km + 1.62 m +1200 cm =**

3)     **8.264 g - 7.8 g =**

4)     **10.4168 m - 6.0 m =**

5)     **12.00 kg +15.001 kg=**

6)     **1.31 cm x 2.3 cm =**

7)     **5.7621 m x 6.201 m =**

8)    **20.2 cm : 7.41 s =**

9)    **40.002 g : 13.000005 g =**

4. Express the following numbers in their equivalent standard notational form:

### 1) 123,876.3

### 2) 1,236,840

### 3) 422000

### 4) 0.000000000000211

### 5) 0.000238

### 6) 0.0000205

5. Identify the sums or differences of the following:

### 1) (8.41 X 104) + (9.71 X 104) =

### 2) (5.11 X 102) - (4.2 X 102) =

### 3) (8.2 X 103) + (4.0 X 103) =

### 4) (6.3 X 10-2) - (2.1 X 10-2) =

6. Express the product and the quotients of the following:

### 1) (3.56 X 105) (4.21 X 106) =

### 2) (2 X 107) (8 X 10-9) =

### 3) (4.11 X 10-6) (7.51 X 10-4) =

### 4) 8.45 X 107 / 6.74 X 103 =

### 5) 9.7 X 108 / 8.6 X 10-2 =

### 6) 4.7 X 10-2 / 5.7 X 10-6 =