HPS Significant Figures Practice Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per \_\_\_\_\_

OBJECTIVE: count and calculate with significant figures.

BACKGROUND INFO: Are they significant?

1. Non-zero digits, sandwiched zeros, and scientific notation = YES!
2. Leading zeros = NO!
3. Trailing zeros? If they follow a non-zero digit and are after a decimal = YES!

PRACTICE:

1. How many significant figures are in the following measurements?

a. 1200 kg e. 20005 sec.

b. 5060800 joules f. 2.30x104 g

c. 0.002003 g g. 2.3x105 sec.

d. 0.0005660 L h. 0.002300 g

2. Perform the following calculations and round the answer to the correct place using significant figure rules. All values represent measurements.

a. 1.72 x 0.007 e. 350 ÷ 7.89

b. 627.1 x 1.72 f. (7.0x10-2) x (3.00x104)

c. 704.050 ÷ 0.15 g. 2.003x106 + 2.10x10-2

d. 201 x 0.015 h. 56.000g ÷ 0.20

3. Measurement Review: [Game Link](http://thephysicsaviary.com/Physics/Programs/Games/find.php)