Name Answer Key Hour ____

Significant Figures

(Honors Chemistry)

Underline the significant digits in each measurement and write how many there are in the space provided:

400	1	1.67×10^{-8}	3	4.293×10^{4}	4	5 400	2
200.0	4	5×10^{12}	1	705	3	100.0	4
0.0001	1	2.00×10^{4}	3	600	1	7029	4
218	3	635.000	6	4301.0	5	0.000004	1
320	2	22 000	2	0.00056	2	8 000 000	1
0.00530	3	5201	4	40280	4	0.010060	5
22 568	5	81	2	33214	5	10.02	4
4755.50	6	23.7×10^{-2}	3	2.003	4	22	2
4.0×10^{3}	2	1.4×10^{7}	2	192	3	357	3

Fill in the table completely:

Round to 2 Significant Digits:		Round to 3 Significant Digits:		Round to 4 Significant Digits:	
431	430	5,555	5,560	65,789	65,790
234,567	230,000	0.0004025	0.000403	2,870,703	2,871,000
6,451,237	6,500,000	5,444,666	5,440,000	0.0800002	0.08000
4.5555×10^{6}	4.6×10^{6}	6.78912×10^{6}	6.79×10^{6}	2.54678×10^{6}	2.547×10^{6}
0.002045	0.0020	0.0000021	0.00000210	93	93.00
0.000003	0.0000030	26	26.0	0.6098780025	0.6099
5	5.0	0.0040000008	0.00400	0.000256	0.0002560
0.00004567	0.000046	4,509,200	4,510,000	6.0487056	6.049
6,548	6,500	9,506,036	9,510,000	33,444,888	33,440,000

Perform the following calculations and round to the correct number of significant digits:

4.333 + 2.223 + 7.6	14.2	8.10 ÷ 6.322245	1.28
732. 343 – 23	709	741.55 x 26	19000
5.73060 x 2.1	12	4.60 + 3	8
7.85 ÷ 3.77777	2.08	0.008 + 0.05	.06
567.90 x 39	22000	22.4420 + 56.981	79.423
3.242 + 5.4 + 7.634	16.3	200 – 87.3	113
98 – 23.547	74	67.5 – 0.009	67.5
4.3218 x 5.13	22.2	0.059 x 6.95	.41
13.7 x 2.5	34	85 ÷ 0.675	126
200 x 3.58	700	1.003 ÷ 106	.00946
0.00003 x 727	.02	8.5 ÷ 0.356	24
5003 ÷ 3.781	1323	1.37 + 8.023 + 7.6	17.0
404.302 ÷ 130	3.1	6.25 x 2.100	13.1
5000 ÷ 55	90	1 + 7.666 + 8.2222	17
3.14 x 5.6	18	7.8 ÷ 1.77777	4.4
305 x 10.6	3230	7.008 + 1.27	8.28
555.77 x 11.000	6113.5	13.2574 x 100.0	1326