

Name \_\_\_\_\_

Significant Figures (Digits)

A) For each measurement given below, determine the number of significant figures in each.

Measurement	# of Sig Figs	Measurement	# of Sig Figs
2000 cm		0.600 cm	
2000. cm		0.0509 cm	
9 cm		0.44003 cm	
250,000 cm		0.000056 cm	
2000.0 cm		0.000990 cm	
30. cm		200.006 cm	
32.0 cm		30.020 cm	
33.5 cm		33302 cm	
390.07 cm		97.285 cm	

B) Round the following measurements to the correct amount of significant figures.

Number	Precision of...	Answer	Number	Precision of...	Answer
42	3 sig fig	42.0	320	3 sig fig	
3570	2 sig fig		17	4 sig fig	
0.3	3 sig fig		16482	4 sig fig	
6	4 sig fig		4.4	3 sig fig	

C) Addition & Subtraction: when adding and subtracting numbers, round your final answer based on the value given with the least precision (fewest numbers after the decimal point)

<b>Problem</b>	<b>Rounded Answer with Unit</b>
4.732 cm + 16.8 cm + 0.781 cm =	
32.0 mL + 0.0059 mL =	
0.00372 g + 0.2187 g + 0.44 g =	
345 mole + 0.788 mole =	
378.98 kg – 16 kg =	
22.95 mg – 6.4 mg =	
33.728 cL – 1.323 cL =	
32.32 J – 0.0049 J =	

D) Multiplication & Division: when multiplying or dividing, round final answer according to the value given with the least number of significant figures

<b>Problem</b>	<b>Number of Sig Fig's in answer</b>	<b>Rounded Answer with Units</b>
37.66 KW x 2.2 h =		
98.11 kg x 200 m =		
381 m x 0.21 m =		
143 \$/L x 341 L =		
7139 g / 1426 cm <sup>3</sup> =		
3.00 cal / 300 g =		
19.82 g / 24.2 km =		
64.77 g / 9.11 mol =		

