Apply: Significant Figures

A - How many significant figures are in the following measurements?

	Measurement	Significant Figures		Measurement	Significant Figures
1	3.412 cm		6	200.34 cm	
2	45000 m		7	2.350 mL	
3	0.37 mm		8	6000. mL	
4	1.014 g		9	200.34 L	
5	99.99 g		10	26.015 kg	

B - Round the following measurements to two significant figures.

	Measurement	Rounded to two Significant Figures		Measurement	Rounded to two Significant Figures
1	3.412 cm		6	200.34 cm	
2	45000 m		7	2.350 mL	
3	0.37 mm		8	6000 mL	
4	1.014 g		9	200.34 L	
5	99.99 g		10	26.015 kg	

C - Convert the following numbers from ordinary notation to scientific notation.

1. Wavelength of sodium light = 0.000 000 5893 m = _____ m
2. Speed of light = 299 793 000 m/sec = _____ m/sec
3. Half-life of U-235 = 710 000 000 years = _____ years
4. Density of hydrogen gas = 0.000 09 g/mL = _____ g/mL
5. Melting point of tungsten = 3410.°C = _____ °C

D – Convert the following numbers from scientific notation to ordinary notation.

1. Temperature of atomic fusion = 1.5×10^{7} °C = _____ °C
2. Mass of an electron = 9.109×10^{-28}g = _____g
3. Mass of a small paperclip = 1×10^{-3}kg =_____ kg
4. Lowest temperature = -2.73×10^{2} °C = – _____°C
5. Charge of a proton = 1.6×10^{-19} coulomb = _____ coulomb