Chemistry 141 Name

Martin Larter Quiz 1 (23 points) February 5, 2016

1. (3 points) Complete the calculation, and report your answers using scientific notation, and the correct number of significant figures.

$\frac{\left(2.83 × 10^{5} g\right)}{\left(413.1 L\right)}+\frac{56.22 g}{L}=$

1. (8 points) Classify the following as either a physical property, physical change, chemical property, or chemical change:

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|  | 1. The production of flatulence in mammals ☺
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|  | 1. Nail polish remover evaporating when the top is left open
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|  | 1. Platinum’s resistibility to corrosion in air
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|  | 1. The stench of an egg
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1. (6 points) A plastic material called HDPE or high density polyethylene was once evaluated for use in impact resistant hulls of small utility boats used for the navy. A cube of the material measures 1.20 x 10-3 m on a side and has a mass of 1.70 x 10-3 Kg. Seawater at the surface of the ocean has a density of 1.03 g/mL. Will the cube float on water? (from book problem 1.71)
2. (6 points) In the S temperature scale, the normal freezing point of water is exactly 12°S and the boiling point of water is exactly 142°S (measured values). Derive temperature equation and calculate 72°S in °F?  Freezing point of water is 32°F and the boiling point of water is 212°F (exact values).