Chemistry 115 - Name

Dr. Cary Willard

Quiz 4A (20 points) September 30, 2008

All work must be shown to receive credit.

Avogadro’s number = 6.022 x 1023/mol

1. (4 points) Calculate the number of moles of molybdenum that have a mass of 4.82 g.
2. (4 points) Calculate the number of molecules of hexane, C6H14, in a 6.52 mol sample of hexane.
3. (4 points) Calculate the number of moles of hydrogen atoms in a 16.4 mol sample of hexane.
4. (8 points) Calculate the empirical formula of a compound that is composed or 63.6% nitrogen and 36.4% oxygen.

Chemistry 115 - Name

Dr. Cary Willard

Quiz 4B (20 points) September 30, 2008

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Avogadro’s number = 6.022 x 1023/mol

1. (4 points) Calculate the number of moles of molybdenum that have a mass of 3.75 g.
2. (4 points) Calculate the number of molecules of hexane, C6H14, in a 4.93 mol sample of hexane.
3. (4 points) Calculate the number of moles of hydrogen atoms in a 31.8 mol sample of hexane.
4. (8 points) Calculate the empirical formula of a compound that is composed or 47.2% Cu and 52.8% chlorine.