Your name: _____

8.1. Scientific notation

Write the following decimal expressions in scientific notation

  a) 1,400,000 g = _____

  b) 0.000433 s = _____

  c) 6,050   m = _____

8.2. Prefix equivalents

Write the equivalent prefix values for the above

  a) 1,400,000 g = _____

  b) 0.000433 s = _____

  c) 6,050   m = _____

8.3. Molecular mass

Calculate the molecular weight (MW) in grams/mol for the compounds below to the nearest gram

  a) Natural gas CH_4 MW= _____grams/mol
  b) Water H_2O MW= _____grams/mol
  c) Gasoline C_8H_{18} MW = _____ grams/mol

8.4. Gram-mole conversions (show work below or no credit) (round answers to nearest whole #)

  a) How many moles of CH_4 in 320 grams of natural gas ? _____moles

  b)   What does 1.111 moles of water weigh ? _____ g

  c) How many moles of gasoline in 2,280 grams of gasoline ?_____moles