



- f. If we react 225 g of octane C_8H_{18} with excess oxygen, how many moles of H_2O are produced? (17.8 mol H_2O)
- g. If we wish to make 7.5 mol CO_2 , how many grams of C_8H_{18} will be used? (110 g C_8H_{18})
- h. If we wish to make 7.5 mol CO_2 , how many grams of O_2 do we need ? (380 g O_2)
- i. If we wish to make 7.5 mol CO_2 , how many grams of H_2O will be produced? (150 g H_2O)
- j. If we have 3.56 g C_8H_{18} , how many grams of O_2 do we need to react with it ? (12.5 g O_2)
- k. If we have 3.56 g C_8H_{18} , how many grams of CO_2 will be produced? (11.0 g CO_2)
- l. If we have 3.56 g C_8H_{18} , how many grams of H_2O will be produced? (5.06 g H_2O)
- m. Using the answers from j, k, and l for burning of 3.56 g of octane, check if the law of conservation of mass is obeyed or not.