

Post-Lab Questions

Exp 03 — Lewis Structures



Name: _____

Student ID: _____

Date: _____

1. Consider the molecular substance dinitrogen tetroxide.

a. What is the molecular formula?

c. What is empirical formula?

b. What is the molecular weight?
(weight of one molecule)

d. What is the molar mass?
(weight of one mole of molecules)

2. How many oxygen atoms are in 17 molecules of dinitrogen tetroxide?

JUSTIFY YOUR ANSWER USING DIMENSIONAL ANALYSIS (SHOW YOUR CALCULATION)

3. What is the mass of 12 molecules of dinitrogen tetroxide?

JUSTIFY YOUR ANSWER USING DIMENSIONAL ANALYSIS (SHOW YOUR CALCULATION)

4. How many oxygen atoms are in 17 moles (of molecules) of dinitrogen tetroxide?

JUSTIFY YOUR ANSWER USING DIMENSIONAL ANALYSIS (SHOW YOUR CALCULATION)

5. What is the mass of 12 moles of dinitrogen tetroxide?

JUSTIFY YOUR ANSWER USING DIMENSIONAL ANALYSIS (SHOW YOUR CALCULATION)