Mole Relationships

The Mole I

Name: ________________________ Score: ______

Imagine 10.00g of each of the following substances. Rank these species from greatest to least number of moles in the sample.

A. C_8H_{18} 114.26 g/mol **B**. NF_3 71.01 g/mol **C**. C_6H_6 78.12 g/mol

D. C_2H_8 32.1 g/mol **E**. NH_3 17.04 g/mol **F**. PH_3 34 g/mole

Greatest 1 E 2 D 3 F 4 B 5 C 6 A Least

Explain your reasoning and show all work below.

To compute # moles from mass, all computations are

$$\# \text{ mole } X = 10.00 g\ X \times \boxed{\frac{\text{mole } X}{\# g\ X}} =$$

↳ MM from Periodic table

So, we're dividing 10 by the MM of each substance. The greater the MM, the less moles we have.

Circle the response that best describes your confidence in your answer above.

(Basically Guessed) 1 2 3 4 5 (Positive you get it)