

1. Calculate the number of moles in the following:

A) 7.8 g of lead

B) 45.0 g of carbon

C) the number of moles in 4.98 g of H₂O

D) the number of moles in 3.5×10^3 g of (NH₄)₃PO₄

E) 14.1 g xenon hexafluoride

2. Calculate the mass of:

A) 2.50 mol of lithium

B) 35.45 mol of CO₂

C) 16.5 mol of oxygen molecules (O₂)

D) 1.25×10^3 mol of Al(OH)₃

E) 65.72 mol diphosphorus pentoxide

3. Calculate the mass of each sample.

A) 88.6 mol copper

B) 0.0346 mol silver

C) 0.037 mol tin(IV) silicate

D) 4.23 mol $\text{Ba}(\text{BrO}_3)_2$

E) 2.996 mol mercury(I) iodide

4. Calculate the number of moles for each sample.

A) 12.66 g lithium

B) 2500 g gold

C) 2.345 g $\text{Li}_2\text{CO}_3 \cdot 2\text{H}_2\text{O}$

D) 591.34 g potassium hydrogen sulfate

E) 0.00367 g sulfur dioxide