practice B #1

given
2.25 mole Fe
want
? g Fe
Need
$MM_{Fe} = \frac{55.85\,g}{1\,mole}$

$$\frac{2.25\ \text{mole Fe}}{} \left| \frac{55.85\,g\ Fe}{1\ \text{mole Fe}} \right.$$

126 g Fe

practice C #1

given
5.00g Ca
want
? moles Ca
need
$MM_{Ca} = \frac{40.08\,g}{1\,mole}$

$$\frac{5.00\,g\ Ca}{} \left| \frac{1\ \text{mole Ca}}{40.08\,g\ Ca} \right.$$

0.125 mole Ca

Practice D #1

given
1.50×10^{12} atoms Pb
want
? moles Pb
need
1mole = 6.02×10^{23} atoms

$$\frac{1.50 \times 10^{12}\ \text{atoms Pb}}{} \left| \frac{1\ \text{mole Pb}}{6.02 \times 10^{23}\ \text{atoms Pb}} \right.$$

2.49×10^{-12} mole Pb

Practice E #1

given

7.5×10^{15} atoms Ni

want

? g Ni

need

1 mole = 6.02×10^{23} atom

$MM_{Ni} = \frac{58.69\ g}{1\ mole}$

$$\frac{7.5 \times 10^{15}\ \text{atom Ni}}{} \left| \frac{1\ \text{mole Ni}}{6.02 \times 10^{23}\ \text{atom Ni}} \right| \frac{58.69\ g\ Ni}{1\ \text{mole Ni}}$$

7.3×10^{-7} g Ni