Warm Up

Ca^{2+} OH^-

What is the mass of 1.89 moles of calcium hydroxide? $Ca(OH)_2$

WANT / HAVE

$$1.89\ mol\ Ca(OH)_2 \times \frac{74.10\ g\ Ca(OH)_2}{1\ mol\ Ca(OH)_2} = \boxed{140.\ g\ Ca(OH)_2}$$

$Ca(OH)_2 \rightarrow (1 \times 40.08) + (2 \times 16.00) + (2 \times 1.01)$

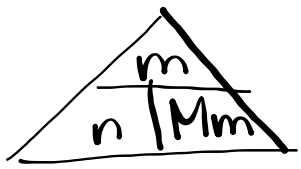
$= 74.10\ g/mol$

m → mass (g)

n → moles (mol)

Mm → molar mass (g/mol)

$$Mm = \frac{m}{n}$$



n = 1.89 mol

Mm = 74.10 g/mol

m = ?

Homework

p. 296 #7,8,13-15

Homework

Worksheet - Molar Calculations

Molar calculations worksheet

1. 8.97 x 10^{-3} mol
2. 1.49 x 10^{25} atoms
3. 1.30 x 10^{26} atoms
4. 46.01 g/mol
5. 14 300 mol
6. 342.34 g/mol
7. 159.70 g/mol
8. 4.24 x 10^{24} molecules
9. 1.79 x 10^{25} atoms
10. 643 g
11. 0.266 mol
12. 10 900 g
13. 6.26 mol