Answer to the Question #61556, Chemistry / General Chemistry

What is the mass of water in 0.01132 moles of $MgSO_4 \cdot 7H_2O$?

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

$$M(MgSO_4 * 7H_2O) = 246 g/mol$$

$$M(MgSO_4) = 120 g/mol$$

$$m(MgSO_4 * 7H_2O) = 0.01132 \cdot 246 = 2.78472 g$$

$$m(MgSO_4) = 0.01132 \cdot 120 = 1.3584 g$$

$$m(H_2O) = 2.78472 - 1.3584 = 1.42632 g$$