

Answer on Question #68920 - Chemistry – Other

Question:

If you need 5 moles of water then how many grams of it will you weigh?

Solution:

First, let's find molar mass of H₂O. One molecule consists of 2 atoms of Hydrogen (each with molar mass 1) and 1 atom of Oxygen (with molar mass 16), altogether, $2 \times 1 + 1 \times 16 = 18 \text{ g/mol}$.

Second, let's find how many grams weigh 5 moles of H₂O:

$$18 \frac{\text{g}}{\text{mol}} \times 5 \text{ mol} \approx 90 \text{ g}$$

Answer:

5 moles of water weighs 90 grams.

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