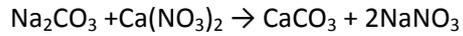


## Answer on Question #40473, Chemistry, Other

### Question

For the following chemical reaction, what mass of calcium nitrate in grams will be needed to produce 3.17 mol of sodium nitrate?



### Answer

$$n(\text{Ca}(\text{NO}_3)_2) = (1/2) * n(\text{NaNO}_3) = 0.5 * 3.17 \text{ mol} = 1.585 \text{ mol}$$

$$M(\text{Ca}(\text{NO}_3)_2) = 164 \text{ g/mol}$$

$$m(\text{Ca}(\text{NO}_3)_2) = n(\text{Ca}(\text{NO}_3)_2) * M(\text{Ca}(\text{NO}_3)_2) = 1.585 \text{ mol} * 164 \text{ g/mol} = 259.9 \text{ g}$$

**Answer: 259.9 g**