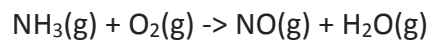
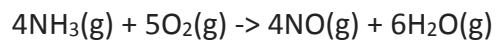


If you reacted 88.9 g of ammonia with excess oxygen, what mass of water would you expect to make? You will need to balance the equation first.



**Solution:**



$$M(\text{NH}_3) = 17 \text{ g/mol}$$

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

$$n = 5,23 \text{ mol}$$

According to equation

$$n(\text{H}_2\text{O}) = 6 \times 5,23 / 4 = 7,845 \text{ mol}$$

$$m = n * M$$

$$M(\text{H}_2\text{O}) = 18 \text{ g/mol}$$

$$m(\text{H}_2\text{O}) = 18 \times 7,845 = 141,2 \text{ g}$$

**Answer:**  $m(\text{H}_2\text{O}) = 141,2 \text{ g}$