



50g	N_2H_4	1 mol	4 mol	H_2O	18 g	=	56.25g H_2O
	32 g	2 mol	N_2H_4	1 mol	H_2O		

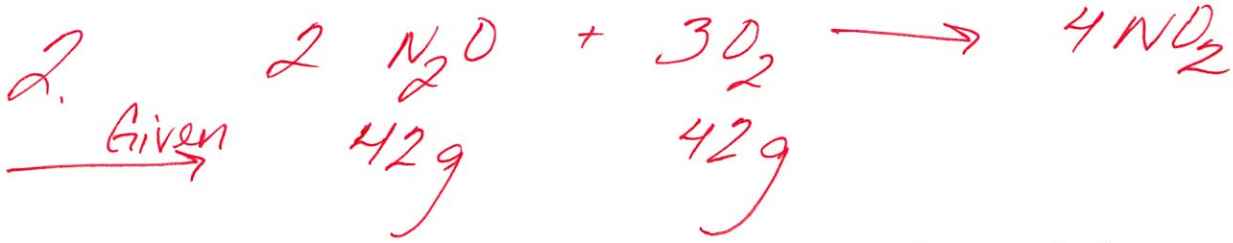
\swarrow N_2H_4 is limiter

100g	N_2O_4	1 mol	4 mol	H_2O	18 g	=	78.2g H_2O
	92 g	1 mol		1 mol	H_2O		

Now - everything will work off of the limiter - which is 50g N_2H_4

\hookrightarrow so

50g	N_2H_4	1 mol	3 mol	N_2	28 g	=	65.6g N_2
	32 g	2 mol		1 mol	N_2		



$$\frac{42\text{g N}_2\text{O}}{44\text{g}} \times \frac{1 \text{ mol}}{1 \text{ mol}} \times \frac{4 \text{ mol NO}_2}{2 \text{ mol}} \times \frac{46\text{g}}{1 \text{ mol NO}_2} = 87.8\text{g NO}_2$$

OR

$$\frac{42\text{g O}_2}{32\text{g}} \times \frac{1 \text{ mol}}{1 \text{ mol}} \times \frac{4 \text{ mol NO}_2}{3 \text{ mol O}_2} \times \frac{46\text{g}}{1 \text{ mol NO}_2} = \boxed{80.5\text{g NO}_2}$$