

1-Т.

$$W(\text{NH}_3) = 20\%$$

$$W = \frac{m_{\text{NH}_3}}{m_{\text{H}_2\text{O}}} \cdot 100\%$$

$$m_{\text{H}_2\text{O}} = 80\text{г}$$

$$m_{\text{NH}_3} = 20\% \cdot 80 \cdot 100\% = 16\text{г}$$

$$m_{\text{H}_2\text{O}} = m_{\text{NH}_3} + m_{\text{H}_2\text{O}}$$

$$80 = 16 + 64$$

$$80 = 80$$

$$C_{\text{H}_2\text{O}} = 64\text{г}$$

$$m(\text{NH}_3) = 80\text{г}$$

$$V = \frac{m}{\rho} = \frac{80}{17} = 4,7058823 \text{ моль}$$

$$V = \frac{N}{N_A} = N = V \cdot N_A = 4,7058823 \cdot 6,02 \cdot 10^{23} = 28,329477 \cdot 10^{23}$$

2-Т.

$$m(\text{C}_2\text{H}_6\text{O}_2) = 32$$

$$V = 20 \text{ мл} = 0,02 \text{ л}$$

$$T/K: V, C$$

$$M: V = \frac{m}{M}$$

$$M(\text{C}_2\text{H}_6\text{O}_2) = 28 + 28 + 4 + 32 = 60$$

$$V = \frac{3}{60} = 0,05 \text{ моль}$$

$$C = \frac{m}{V \cdot M} = \frac{3}{0,02 \cdot 60} = 2,5 \text{ моль/л}$$

