

| Общий балл | Дата     | Ф.И.О. Жюри | Подпись         |
|------------|----------|-------------|-----------------|
| 39         | 21.03.25 | Фасутова    | <i>Фасутова</i> |
| Шифр       |          |             | 042076          |

В 9-2.

| 1 | 2    | 3   | 4 | 5 |
|---|------|-----|---|---|
| 5 | 13,5 | 9,5 | 8 | 3 |

$$\begin{array}{rcl}
 \boxed{8} - 6 & = & 2 \\
 \boxed{6} & & + \\
 \boxed{2} & & \boxed{5} \\
 \boxed{14} & & \boxed{10} - \boxed{4} = \boxed{6} \\
 \boxed{7} - 2 & = & 5 \\
 \boxed{7} & & 7 + 5 = 13 \\
 \boxed{7} - 3 & = & 4 \\
 & & + \\
 & & \boxed{3} \\
 & & \boxed{1} \\
 & & \boxed{9} \\
 & & \boxed{9}
 \end{array}$$

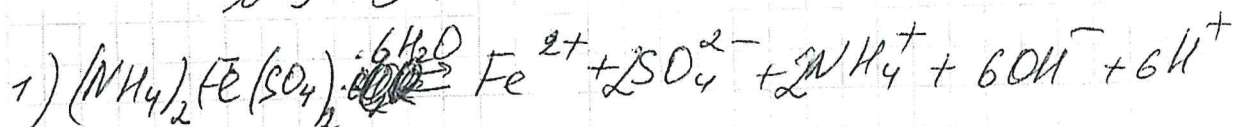
В 9-3

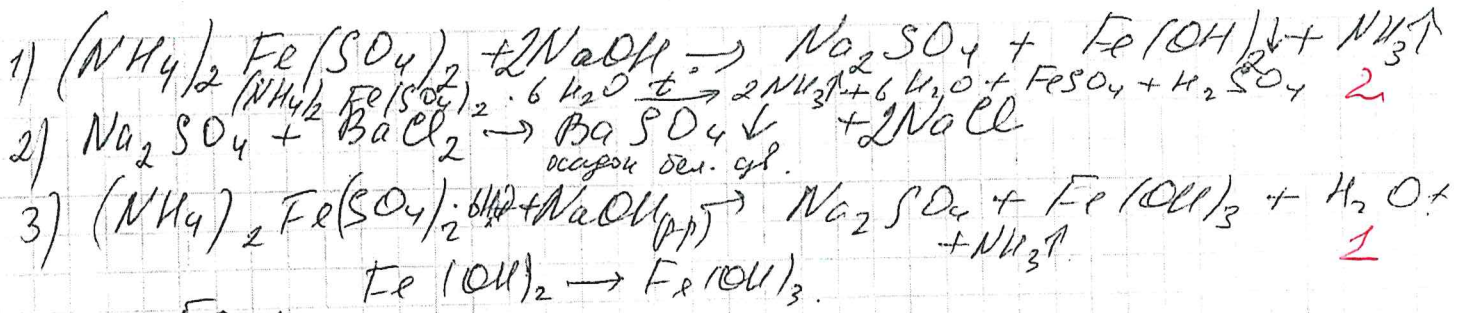
- 1)  $\text{Cr} + 3\text{O}_2 = 2\text{Cr}_2\text{O}_3$  1,5
- 2)  $\text{Cr}_2\text{O}_3 + 3\text{C} \xrightarrow{t} 2\text{Cr} + 3\text{CO}$  2
- 3)  $\text{Cr}_2\text{O}_3 + 3\text{KNO}_3 + 4\text{KOH} \rightarrow 2\text{K}_2\text{CrO}_4 + 3\text{KNO}_2 + 2\text{H}_2\text{O}$  2
- 5)  $\text{K}_2\text{CrO}_4 + 2\text{H}_2\text{SO}_4(\text{конц}) \xrightarrow{1} \text{CrO}_3 + 2\text{KHSO}_4 + \text{H}_2\text{O}$  -
- 6)  $\text{CrO}_3 + 2\text{KOH} \rightarrow \text{K}_2\text{CrO}_4 + \text{H}_2\text{O}$
- 7)  $4\text{CrO}_3 \xrightarrow{1} 2\text{Cr}_2\text{O}_3 + 3\text{O}_2$

В 9-4

- 1)  $\text{C}_6\text{H}_{10}\text{O}_5 + 6\text{O}_2 \rightarrow 6\text{CO}_2 + 5\text{H}_2\text{O}$  8
- 2) 1060 кДж
- 3) 5300 кДж

В 9-5

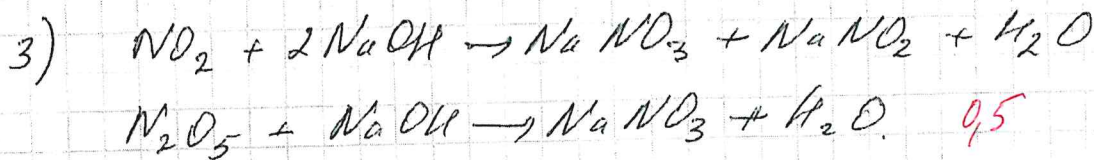
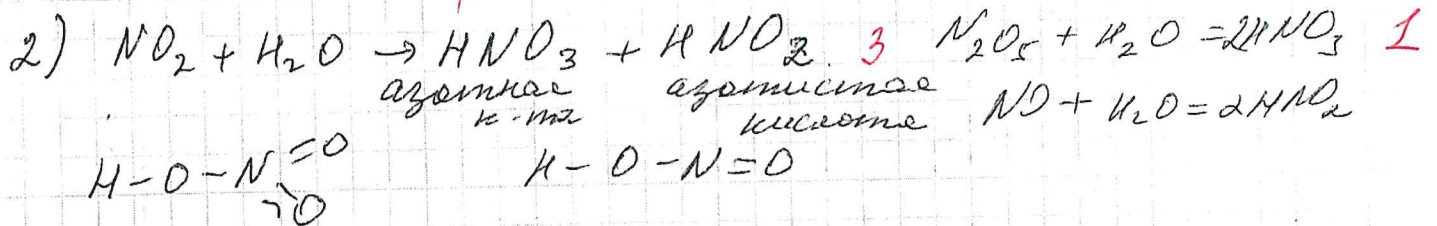




б.г.1.

1) X - N-азот

окисл. A -  $\text{N}_2\text{O}_3$ , B -  $\text{NO}_2$ , D -  $\text{NO}$  C -  $\text{N}_2\text{O}_5$   
 0,5



Дано:  
 $m(\text{NO}_2) = 21,62$   
 $m(\text{NaOH}) = 86 \text{ г}$   
 $\omega(\text{р-ра}) = 16\%$   
 $\rho = 1,75 \text{ г/мл}$

$\omega(\text{р-ра}) = ?$

Решение:

$$m_{\text{H}_2\text{O}} = \frac{m_{\text{р.в}}}{m_{\text{р-ра}}} \cdot 100\% \cdot \frac{1}{100}$$

$$m(\text{NaOH}) = 86 \cdot 1,75 = 150,52$$

$$m_1 + m_2 = 150,5 + 21,6 = 172,12$$

$$\omega = \frac{150,5}{172,1} \cdot 100 = 87,4\%$$