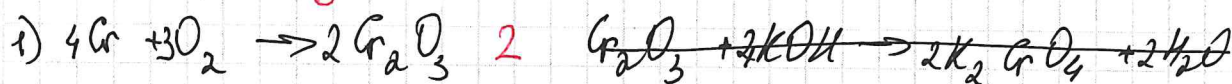


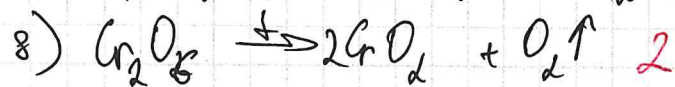
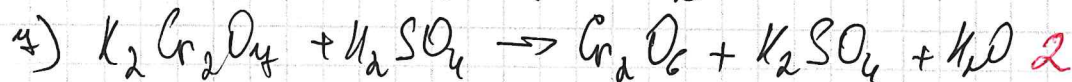
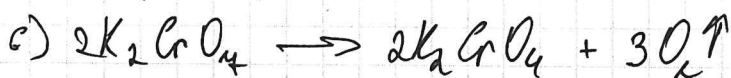
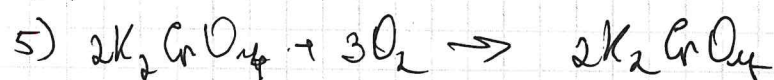
Общий балл	Дата	Ф.И.О. Жюри	Подпись
54,5	14.03.25	Радченко	<i>Радченко</i>
Шифр			919439

Задача 9-3.
A - Cr B - Cr₂O₃ ; C - K₂CrO₄ ; D - K₂Cr₂O₄ E - Cr₂O₆
F - CrO₂



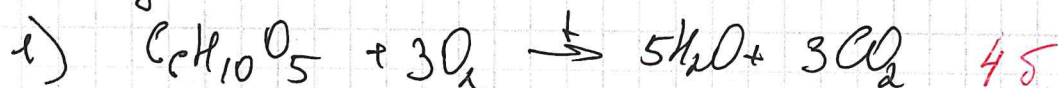
3)

4)



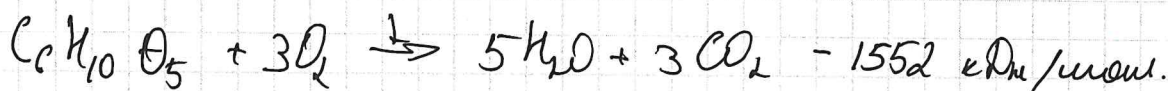
1	2	3	4	5
12,5	15,5	12	7	4,5

Задача 9-4.



2) $-394 \cdot 3 + (-286) \cdot 5 = -2612$

$-1060 \rightarrow -2612 \Rightarrow \text{энтальпия} = -1552$



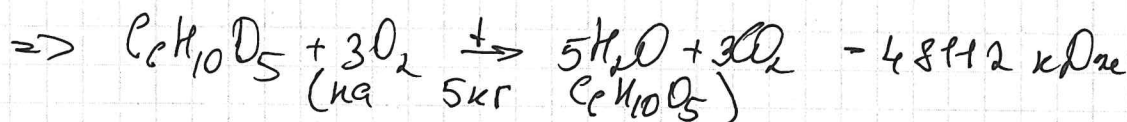
3) $m(C_6H_{10}O_5) = 5000 \text{ г} \Rightarrow n(C_6H_{10}O_5) = \frac{m}{M} = \frac{5000}{162} \approx 30,864 \text{ мол}$

$\Rightarrow 30,864 \approx 31 \text{ мол.} \Rightarrow \Delta H(C_6H_{10}O_5) = -32800$

$\Rightarrow n(H_2O) = 31 \cdot 5 = 155 \text{ мол} \quad \Delta H(H_2O) = 155 \cdot (-286) = -44330$

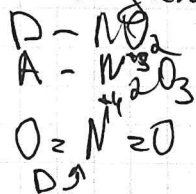
$\Rightarrow n(CO_2) = 31 \cdot 3 = 93 \text{ мол} \Rightarrow \Delta H(CO_2) = 93 \cdot (-394) = -36642$

$-32800 \rightarrow -80942$

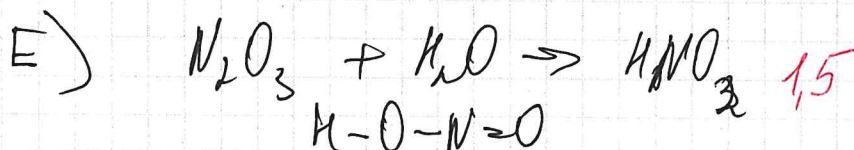
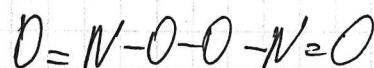
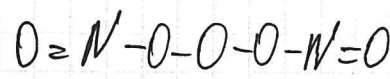
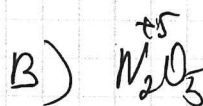
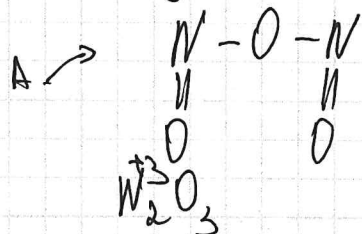
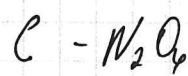
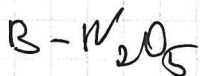


Общий балл	Дата	Ф.И.О. Жюри	Подпись
57,5	14.03.25	Резервов	<i>[Signature]</i>
Шифр			910430

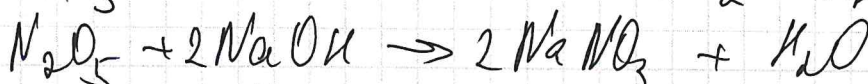
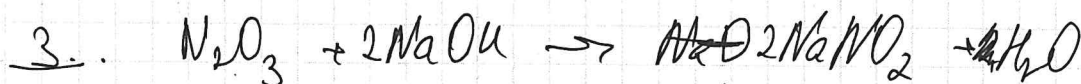
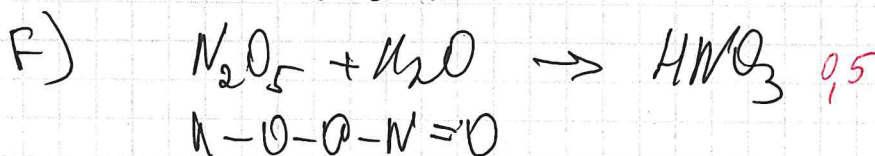
Задача 1. X - N



3,5

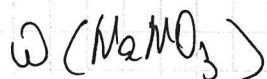


12,5

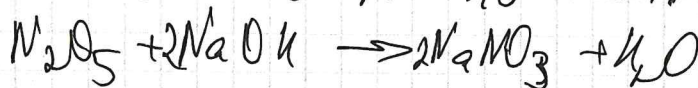


3

$$\begin{aligned} m(\text{N}_2\text{O}_5) &\approx 21,6 \\ V(\text{NaOH}) &\approx 86 \text{ мл} \approx 0,086 \text{ л} \\ \omega(\text{NaOH}) &\approx 16\% \approx 0,16 \\ \rho(\text{NaOH}) &\approx 1,1451 \text{ г/мл} \end{aligned}$$



$$\begin{aligned} m(\text{NaOH}) &\approx V \cdot \rho \approx 10 \text{ л} \cdot 1,16 \text{ г/мл} \approx 11,6 \text{ кг} \\ \Rightarrow n(\text{NaOH}) &= \frac{m}{M} \approx \frac{101}{40} \approx 2,525 \text{ моль} \end{aligned}$$



$$\Rightarrow m_{\text{р-р}} \approx 10 \text{ л} + 21,6 \text{ г} \approx 122,6 \text{ г} \quad 4$$

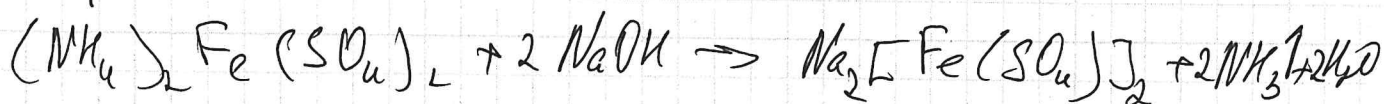
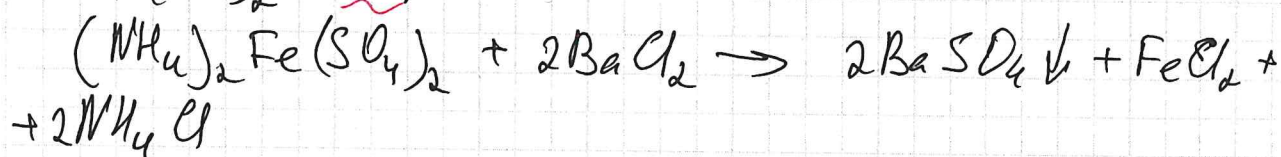
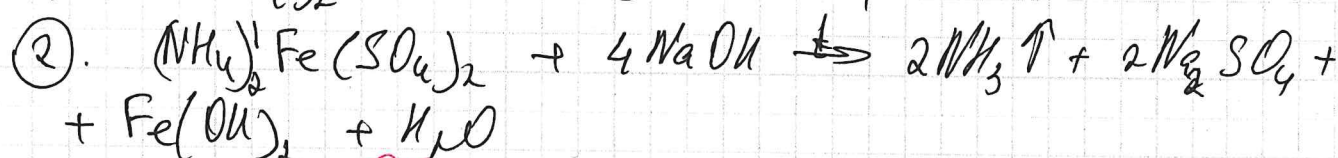
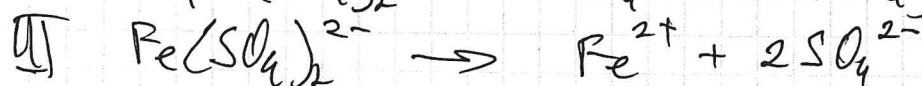
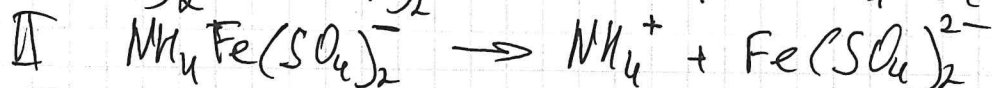
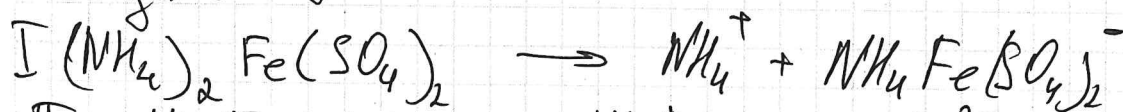
$$\Rightarrow n(\text{NaNO}_3) \approx 2,525 \text{ моль} \approx 0,4 \text{ моль}$$

$$m(\text{NaNO}_3) \approx n \cdot M \approx 85 \cdot 0,4 \approx 34 \text{ г}$$

$$\omega(\text{NaNO}_3) \approx \frac{m}{m_{\text{р-р}}} \cdot 100\% \approx \frac{34}{122,6} \cdot 100\% \approx 27,7\%$$

Общий балл	Дата	Ф.И.О. Жюри	Подпись
51,5	14.03.25	Резусова	
		Шифр	

Задача 9-5.



Задача 9-2.

a	-8	+
b	-10	+
c	-5	+
d	-4	+
e	-3	+
f	-1	+
g	-1	+
h	-14	+
i	-2	-
j	-4	+
k	-5	+
l	-4	+
m	-2	+
n	-4	+
o	-5	+
p	-4	+
q	-2	+
r	-3	-
s	-4	-
t	-3	+

Handwritten solution for a 10x10 grid puzzle. The grid contains numbers and mathematical symbols. Some cells are circled in red, indicating a specific path or solution. The numbers are:

8	-	5	=	13					
-				4					
3				5					
2				2					
5	14	-	8	+	4	=	12		
	4	-	1	=	6				
	2		+						
	4		4	+	4	=	8		
4	-	2	=	5					
				3			1		
				2			2		
				4			4		

The circled numbers are 13, 8, 12, 6, 4, and 5.

15,5

