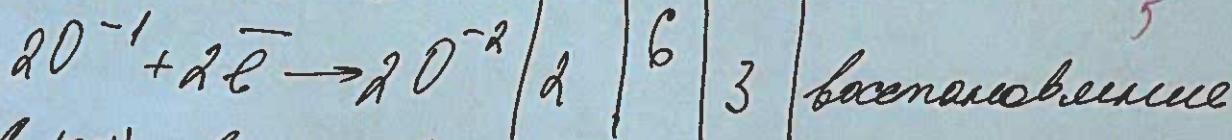
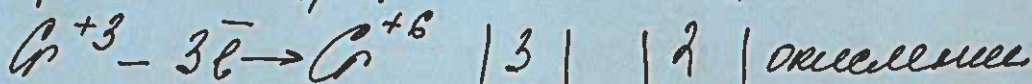
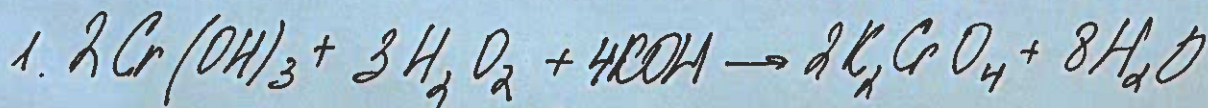




Вариант № 2

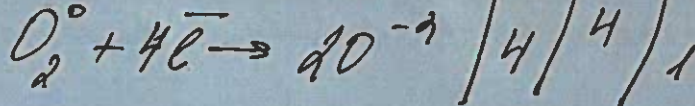
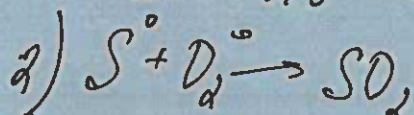
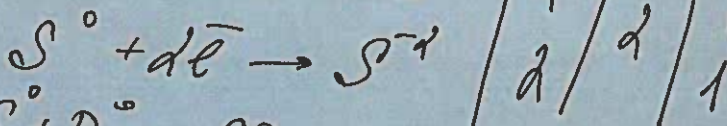
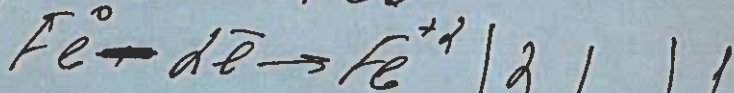
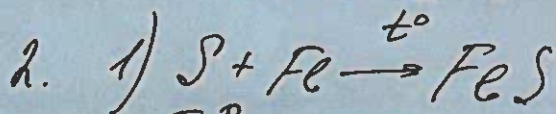
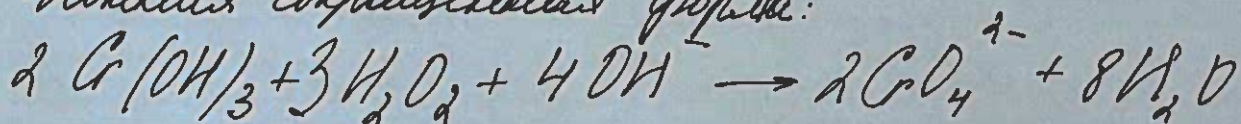
Оценка выполнения олимпиадной работы (заполняется проверяющим)											
№ задания	1	2	3	4	5	6	7	8	9	10	Σ
Полученный балл	5	8	3	—	20	9					45
I проверка	Подпись проверяющего			Σ баллов прописью	сорок пять						
	Подпись проверяющего			Σ баллов прописью	сорок пять						
II проверка	Подпись проверяющего			Σ баллов прописью	сорок пять						
	Подпись проверяющего			Σ баллов прописью	сорок пять						



$\text{Cr}(\text{OH})_3$ - восстановитель

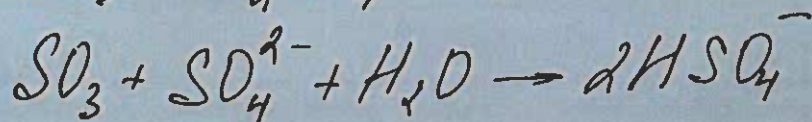
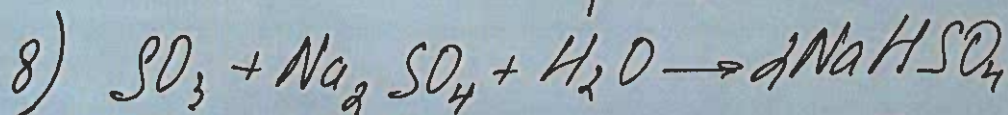
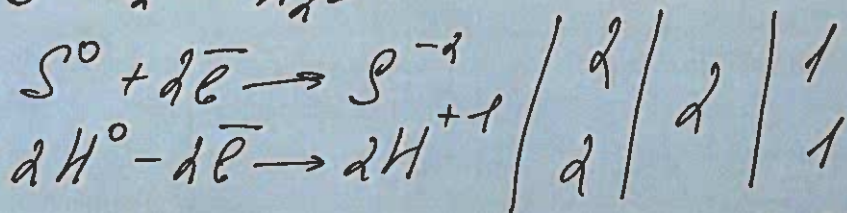
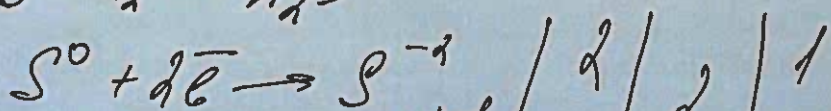
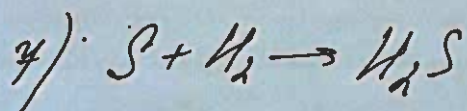
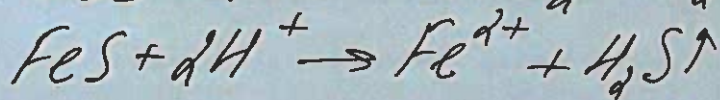
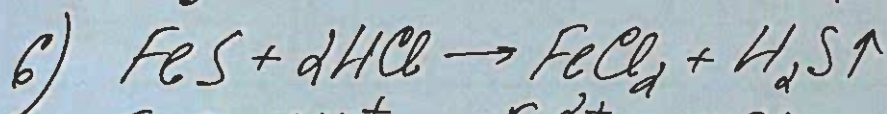
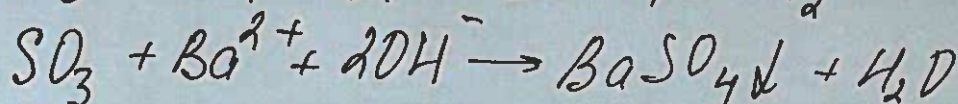
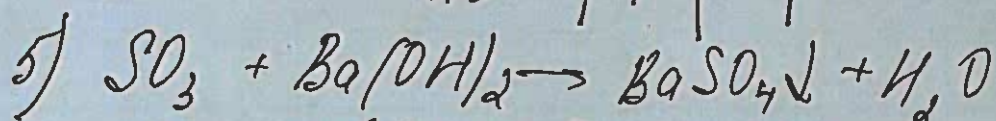
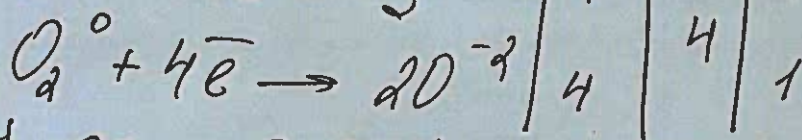
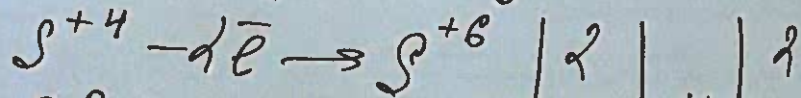
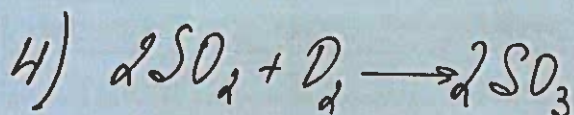
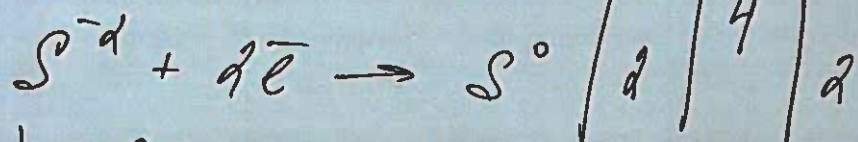
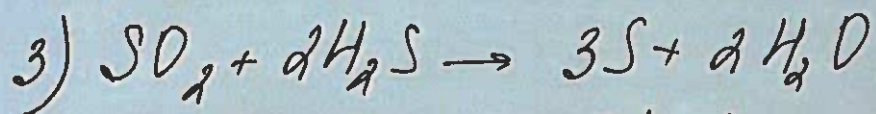
H_2O_2 - окислитель

Ионная сокращенная форма:



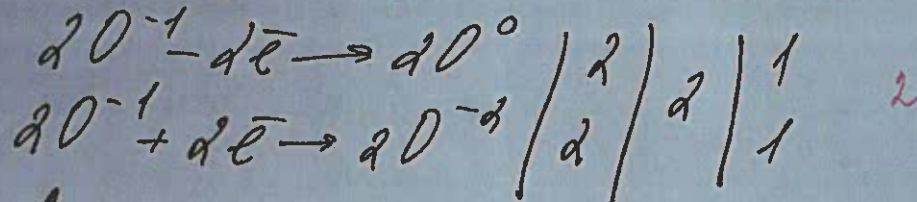
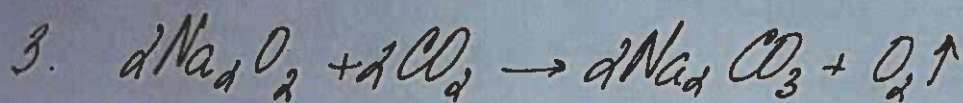


Вариант № 2

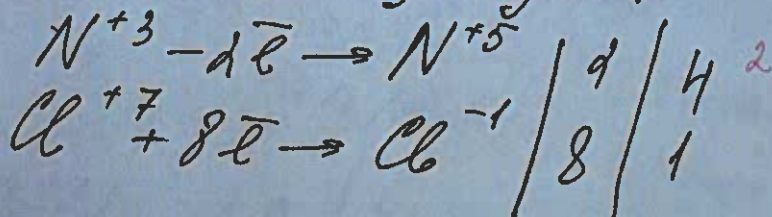
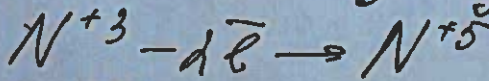
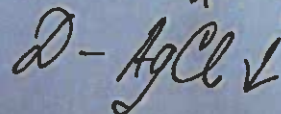
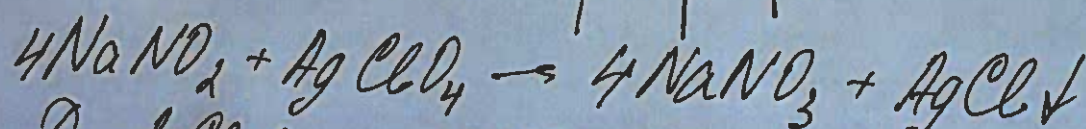
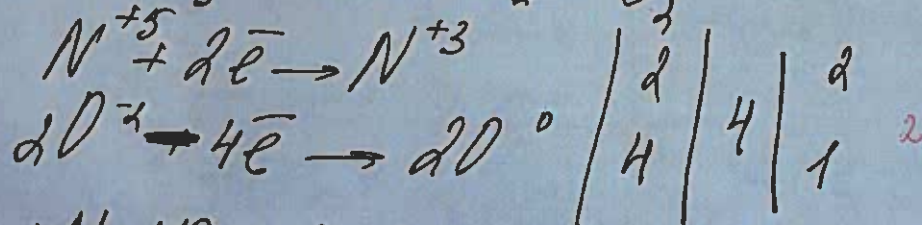
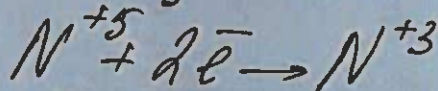
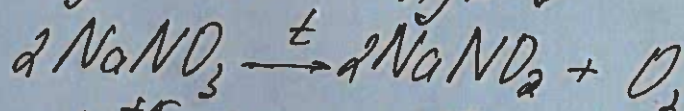
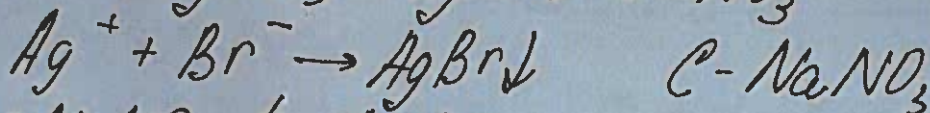
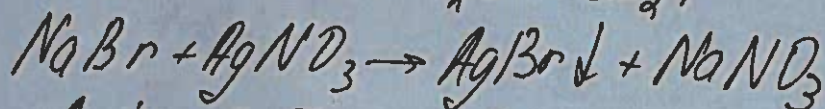
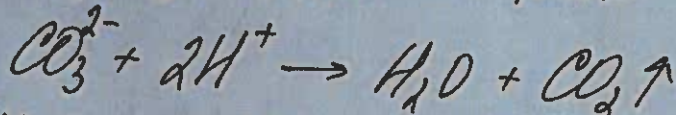
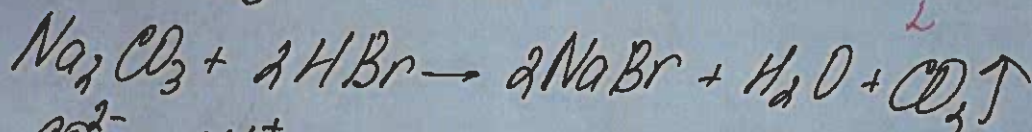




Вариант № 2

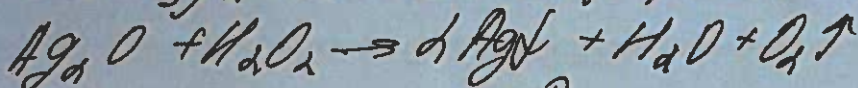
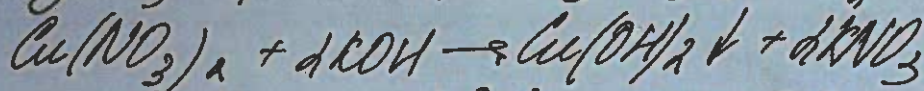
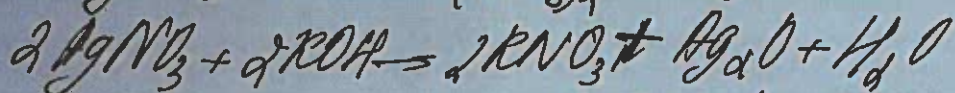
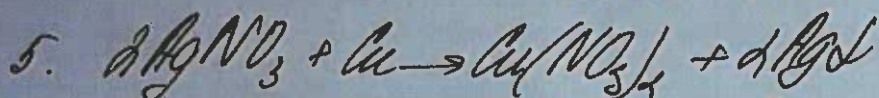


10





Вариант № 2



$$m(\text{р-ра } AgNO_3) = 470 \text{ г}$$

$$m(AgNO_3)_{\text{ист.}} = 75,2 \text{ г}$$

$$V_{\text{р-ра } (KOH)} = 200 \text{ мл}$$

$$m(\text{р-ра}) = 228 \text{ г}$$

$$\omega(KOH) = \frac{17,4}{147,4} = 0,148$$

$$m(KOH) = 33,79 \text{ г}$$

$$m(Ag \downarrow) = 7,776 \text{ г}$$

$$m(AgNO_3)_{\text{ост.}} = 64,96 \text{ г}$$

$$n(AgNO_3) = 0,37 \text{ моль}$$

$\Rightarrow$ избыток

$$n(KOH)_{\text{прореаг.}} = 0,442 \text{ моль}$$

$$m(KOH)_{\text{прореаг.}} = 24,75 \text{ г}$$

$$m(KOH)_{\text{ост.}} = 9,04 \text{ г}$$

Рассчитаем уменьшение массы детали на 5.5 г. Пусть прореаг.

x моль Cu . Тогда: $n(Ag \downarrow) = 2x$ моль

$$2x \cdot 108 - x \cdot 64 = 5,5 \Rightarrow x = 0,036 \text{ моль}$$

$$\Rightarrow n(Cu(NO_3)_2) = 0,036 \text{ моль}$$

$$\Rightarrow n(Cu(OH)_2 \downarrow) = 0,036 \text{ моль}$$

$$m(Cu(OH)_2 \downarrow) = 3,528 \text{ г}$$

$$n(Ag_2O) = 0,185 \text{ моль} \Rightarrow m(Ag_2O) = 42,92 \text{ г}$$

$$n(Ag \downarrow) = 0,37 \text{ моль}$$

$$m(Ag) = 40 \text{ г} \Rightarrow \text{достаточно}$$

для изг. изреши

$$m(\text{р-ра})_{\text{конечное}} = 470 - 5,5 + 228$$

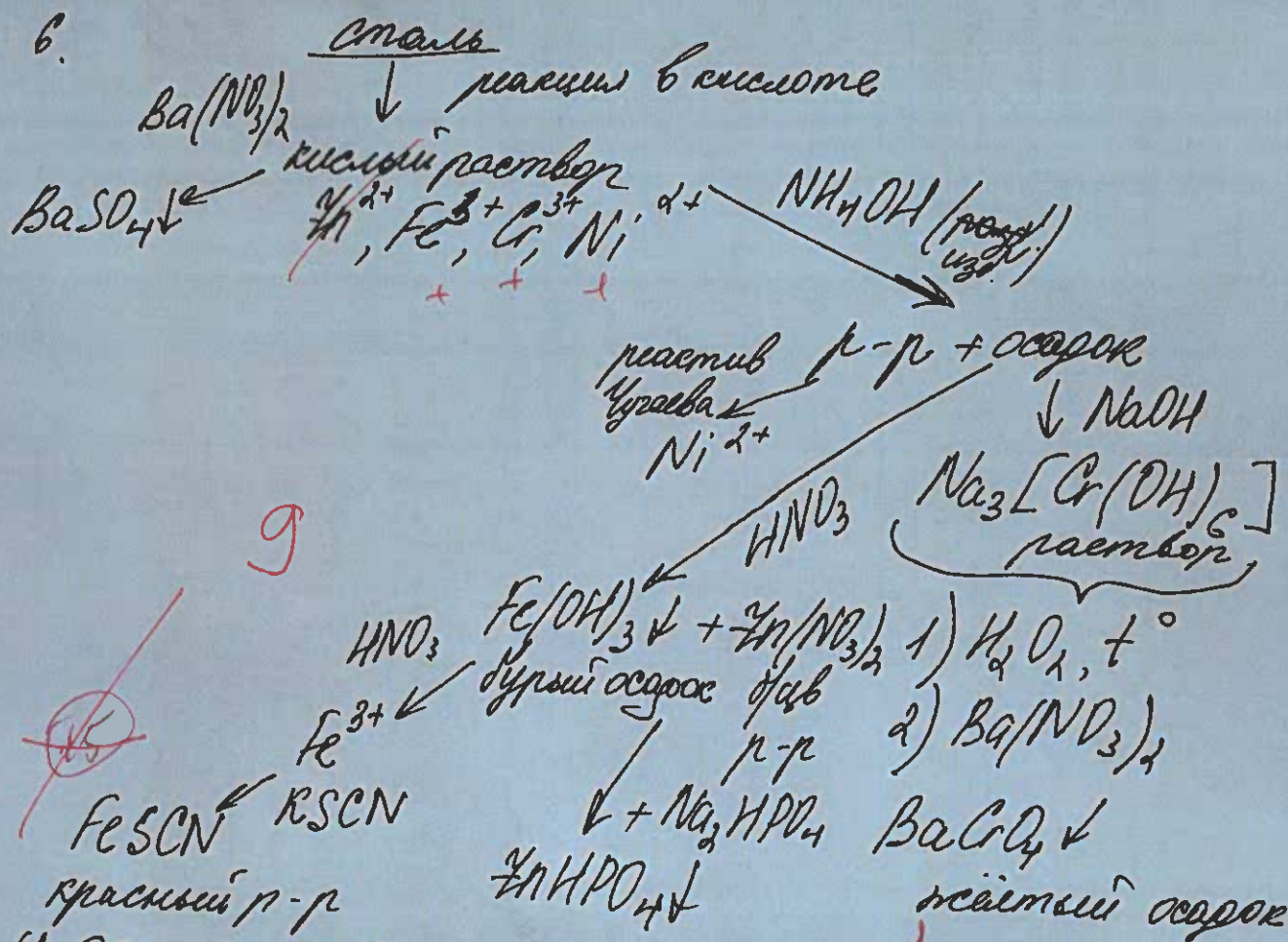
$$- 42,92 - 3,53 = 646,05 \text{ г}$$

$$\omega(KOH) = \frac{9,04}{646,05} = 0,014 = 1,4\%$$



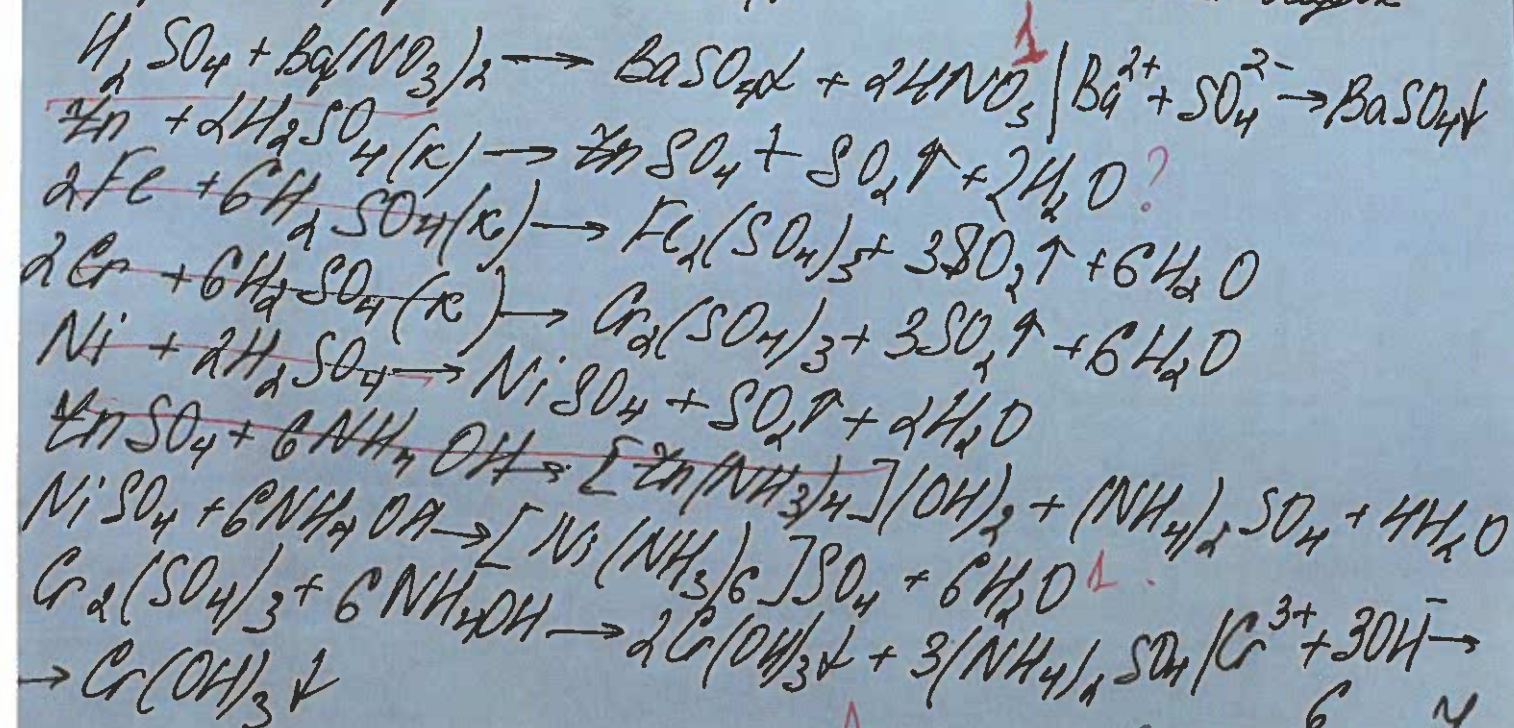
Вариант № 2

6.



9

15





Вариант № а

