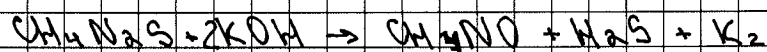
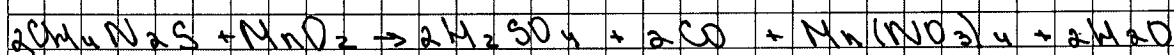
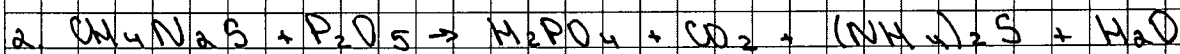
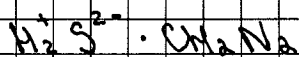
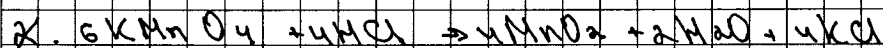


Задача 1.

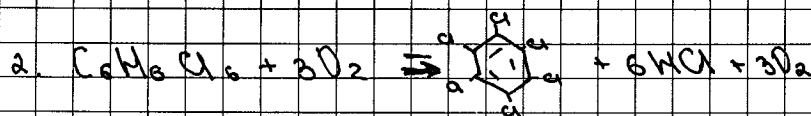
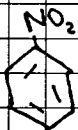
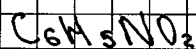
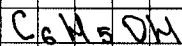
1. $\text{CH}_4\text{Na}_2\text{S}$ 

Задача 2

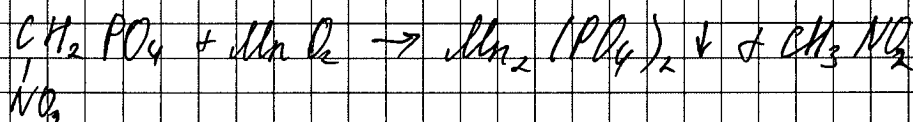
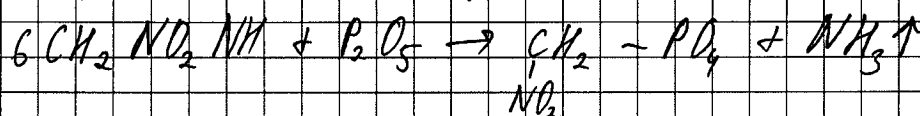
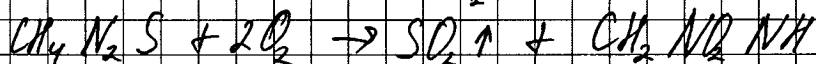
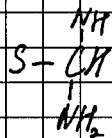
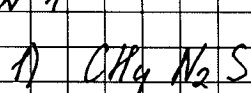
1. X - Mn (Марганец)



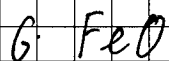
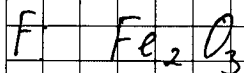
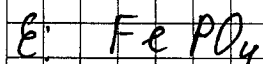
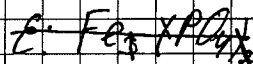
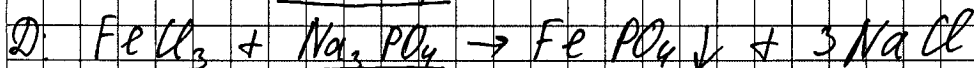
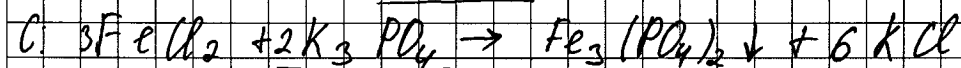
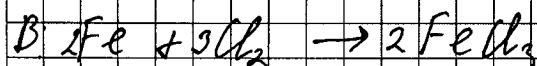
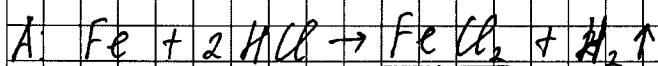
Задача 3

1. C_6H_6 

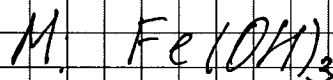
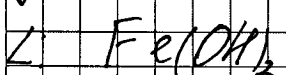
✓ 1



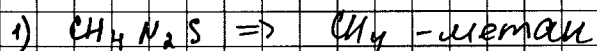
✓ 2 X: Fe



J



Задача 1.

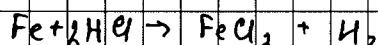
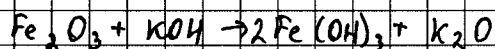
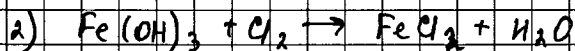


2)

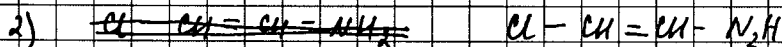
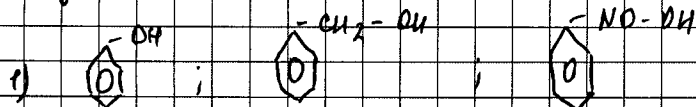
3) увеличился на 8,8 г; объем увеличился на 5 л

4) 185,03 кДж

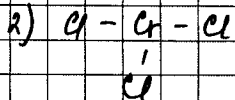
Задача 2.

1) Fe ; A - FeCl_2 ; M - FeCl_3 ; F - Fe_3O_4 ; G - FeO ; H - Fe_2O_3 ; E - FeS 3) $\text{Fe}(\text{OH})_3$; степень окисления Fe : +3.

Задача 3.

3) X - HNO_3 4) $\text{H}-\text{O}-\text{NO}_2$ 5) Y $\rightarrow \text{AlCl}_3$; Z $\rightarrow \text{Al}(\text{OH})_3$

Задача 4.

1) CrCl_3 

3) 40,5 %

Задача 5.

1) $Al(OH)_3$: $MP = 27 \cdot 51 = 1377$

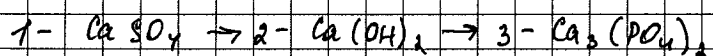
$CaCO_3$: $MP = 40 \cdot 60 = 2400$

$MgNH_4PO_4$: $MP = 86 \cdot 95 = 8170$

2) $PbCl_2$: $MP = 207 \cdot 71 = 14697$

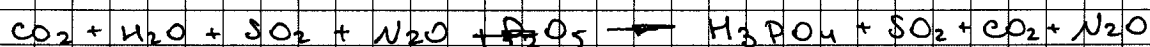
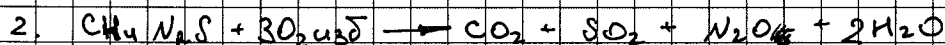
3) 0,87

4) ~~$Ca_3(PO_4)_2$; $Ca(OH)_2$; $CaSO_4$~~



Задание 1.

1 -

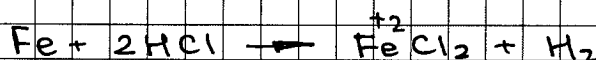


3 -

4 -

Задание 2.

6-60 х- железо. Fe

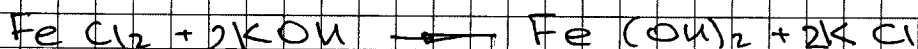
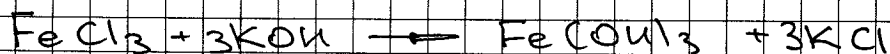
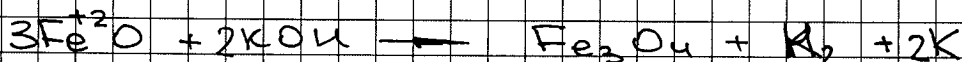
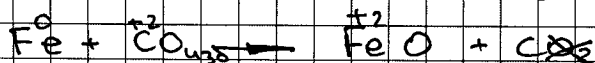
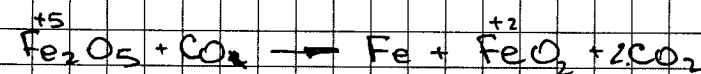
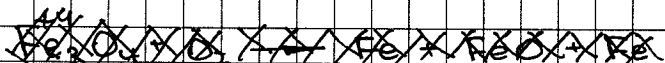
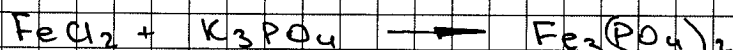
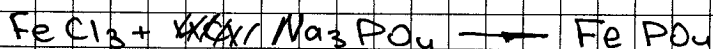


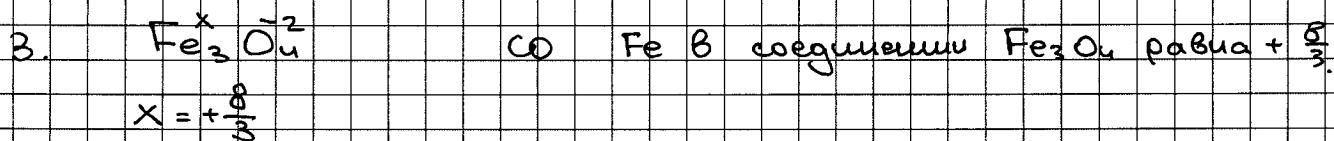
$$\omega(\text{Cl}_1) = \frac{35,5 \cdot 2}{56 + 35,5 \cdot 2} = \frac{71}{127} = 0,559.$$



$$\omega(\text{Cl}_2) = \frac{35,5 \cdot 3}{56 + 35,5 \cdot 3} = \frac{106,5}{162,5} = 0,655.$$

$$\frac{\omega(\text{Cl}_2)}{\omega(\text{Cl}_1)} = \frac{0,655}{0,559} = 1,172 \Rightarrow \omega(\text{Cl}_1) \text{ меньше в } 1,172 \text{ раза, чем } \omega(\text{Cl}_2).$$

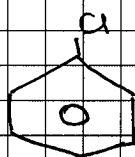




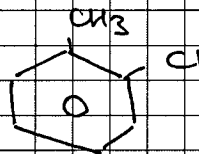
Задача 3.

1.

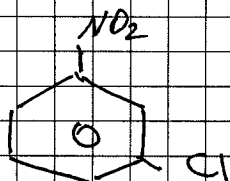
а)



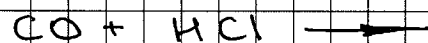
б)



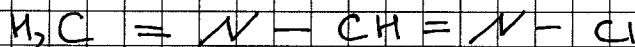
в)



2.



3.



4.

$\omega(\text{O}) = 21,89\%$

$\omega(\text{N}) = 19,16\%$

пусть в-во X имеет массу = 100г

тогда:

$m(\text{O}) = 21,89\text{г}$

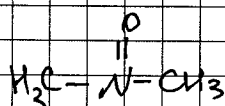
$m(\text{N}) = 19,16\text{г}$



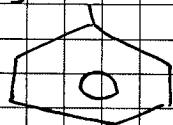
$m(\text{C}) + m(\text{H}) = 100 - 21,89 - 19,16 = 58,95\text{г}$

$n(\text{O}) = \frac{21,89}{16} = 1,368\text{ моль}$

$n(\text{N}) = \frac{19,16}{14} = 1,368\text{ моль}$



кол-во N = кол-во O.

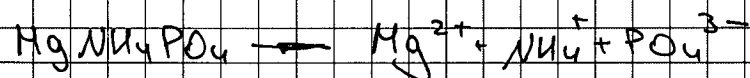
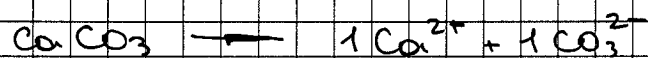
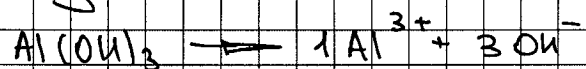


5-

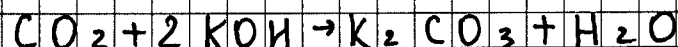
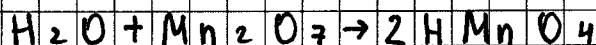
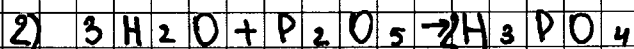
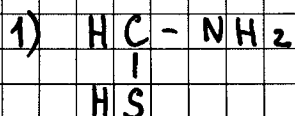
Задание 4

-

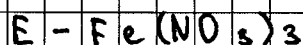
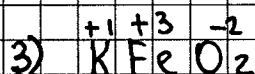
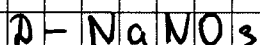
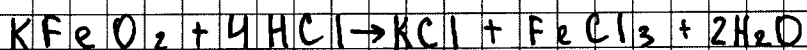
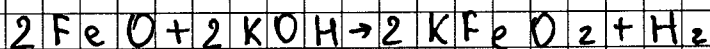
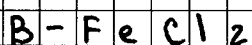
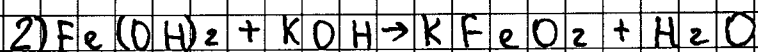
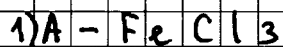
Задание 5.



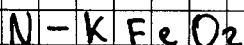
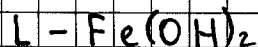
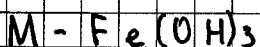
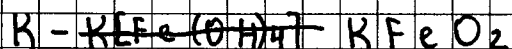
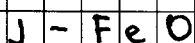
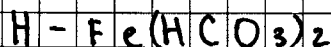
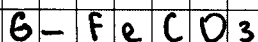
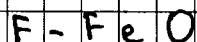
N1



N2

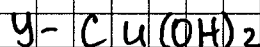
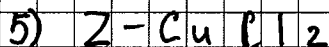
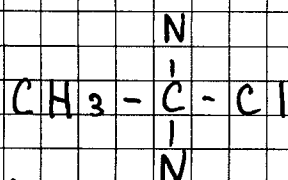


Oxidation: +3

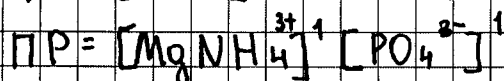
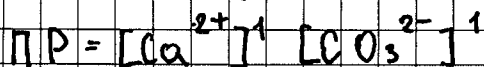
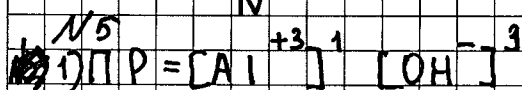


N3

2)



N5



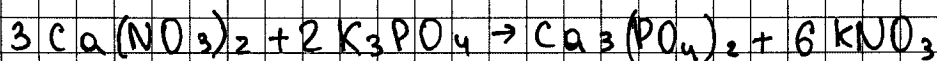
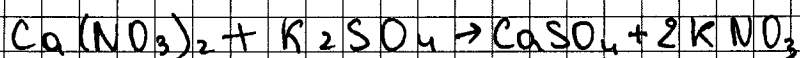
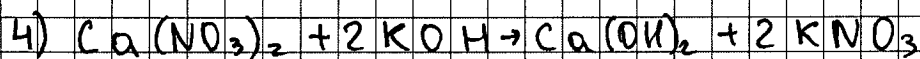
$$2) \text{растворимость} = \frac{m(\text{р.соли})}{m(\text{H}_2\text{O})}$$

$$\text{ПР}(\text{PbCl}_2) = \frac{0,474}{100} = 0,00474$$

$$3) \text{ПР}(\text{BaSO}_4) = 1,1 \cdot 10^{-10}$$

$$m(\text{р.соли}) = 1,1 \cdot 10^{-10} \cdot 100 = 110 \cdot 10^{-10}$$

$$\text{Ответ: } \frac{110 \cdot 10^{-10} (\text{г})}{100 (\text{г})}$$



$$\text{Ответ: } 1,3 \cdot 10^{-4}; 5,5 \cdot 10^{-6}; 1 \cdot 10^{-29}$$

N 2

1. X - Fe

A - FeCl₂

B - FeCl₃

C -

D -

E -

F - Fe₃O₄

G - Fe₂O₃

H - FeO

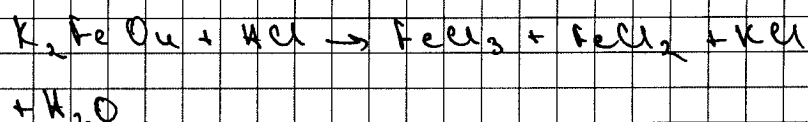
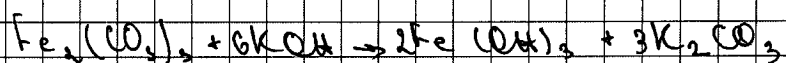
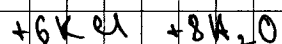
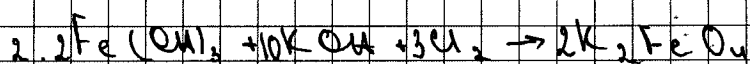
J - Fe₂(CO₃)₃

M - Fe(OH)₂

L - Fe(OH)₃

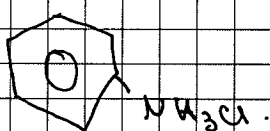
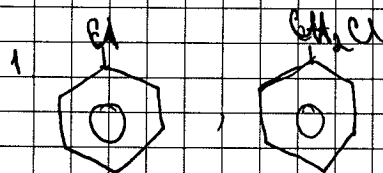
N - K₂FeO₄

K - K₂FeO₄

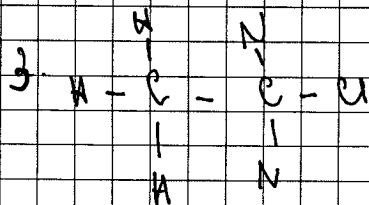


3. степень окисления +6

N 3



2. NH₄

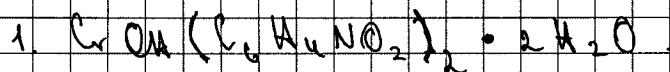


N 1

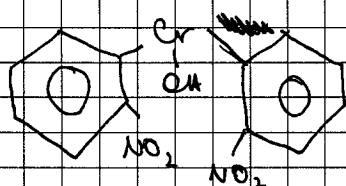
1. H₂C - NH₂

H₂

N 4.

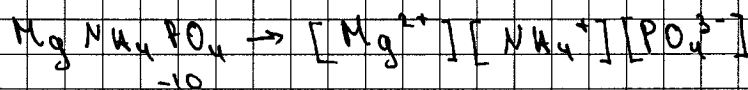
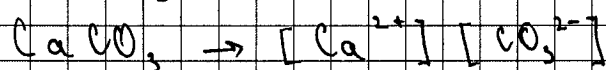
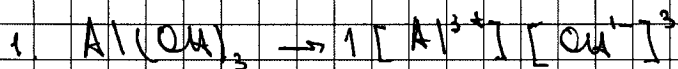


2.



3. 20%.

N 5.

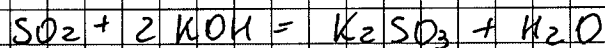
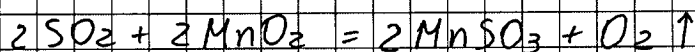
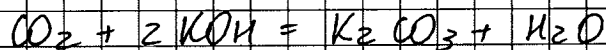
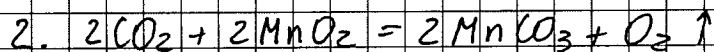
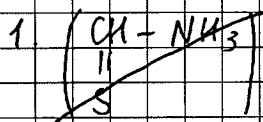


2. $4,7 \cdot 10^{-10}$

3. $0,2622/100 = 0,2622\%$

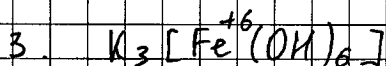
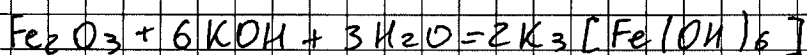
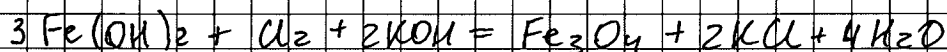
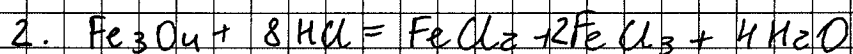
4. ~~Вещи~~ $\text{K}_2\text{PO}_4, \text{K}_2\text{SO}_4, \text{KOH}$.

Задание 1



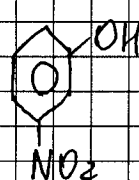
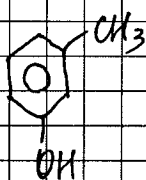
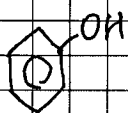
Задание 2.

1. X - Fe

A - FeCl₂B - FeCl₃L - Fe(OH)₃M - Fe(OH)₂N - Fe₃O₄

Задание 3

1.



Задание 4.

3.

$$\rho = \frac{m}{V}$$

$$10 \text{ мм} = 1 \text{ см}; 5 \text{ мм} = 0,5 \text{ см}; 2,5 \text{ мм} = 0,25 \text{ см}$$

$$1,4 \frac{\text{г}}{\text{см}^3} = \frac{m}{3,14 \cdot (0,25)^2 \cdot 1 \text{ см}}$$

$$m = 1,4 \cdot 3,14 \cdot (0,25)^2 \cdot 1 \approx 0,28 \text{ г}$$

$$\omega(\text{г}) = \frac{200 \cdot 10^{-6} \text{ г}}{0,28 \text{ г}} \cdot 100\% = 0,071\%$$

Задачи 5. 1. $Al(OH)_3$; $ПР = [Al^{3+}]^1 [OH^{-}]^3$

$CaCO_3$; $ПР = [Ca^{2+}]^1 [CO_3^{2-}]^1$

$MgNH_4PO_4$; $ПР = [Mg^{2+}]^1 [NH_4^{+}]^1 [PO_4^{3-}]^1$

4. 1) Фосфат кальция

2) Гидроксид

3) Сульфат.