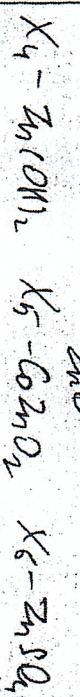
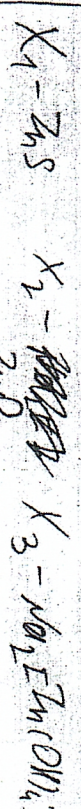
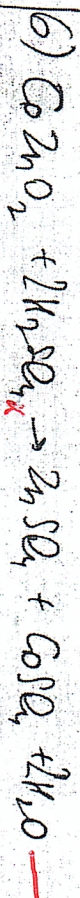
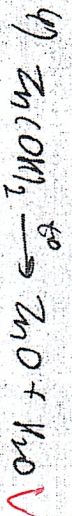
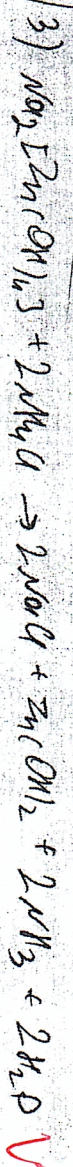
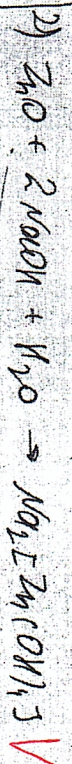
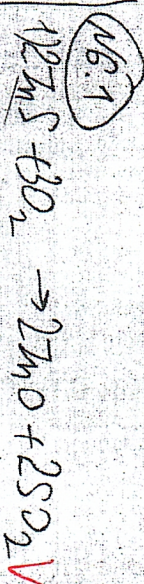
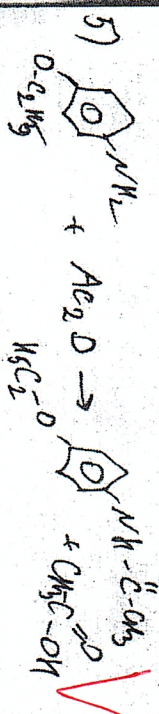
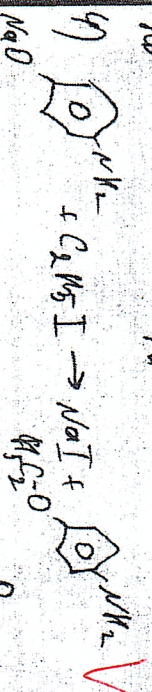
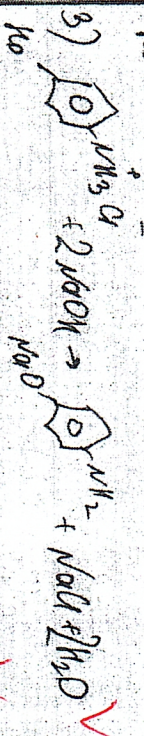
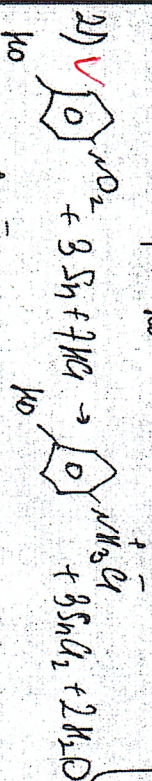
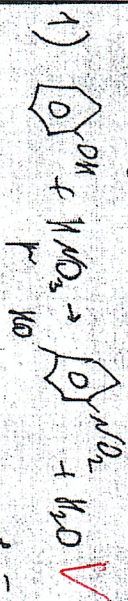


№1.1  $\text{C}_6\text{H}_5\text{Br}$  по генеру, или через генер  
с диметиловым  $\Rightarrow$  бензольного А-орена  
 $\text{W}(\text{CP}) = \frac{50}{94} = 0,5319 \Rightarrow \text{ген}, \text{A} - \text{C}_6\text{H}_5\text{OH} \checkmark$



№1.7  $\text{Итого } n(\text{MgZn}_2(\text{PO}_4)_2 \cdot 4\text{H}_2\text{O}) = x \text{ моль, масса } n(\text{Al}_2(\text{OH)}_3(\text{PO}_4)_2) = y \text{ моль}$

$n(\text{O}) = \frac{7,6454 \cdot 16}{6,02 \cdot 10^{23}} = 1,22 \text{ моль}$

$\begin{cases} 2x + y = 0,21 \\ 12x + 9y = 1,22 \end{cases} \Rightarrow \begin{cases} x = 0,1 \\ y = 0,01 \end{cases}$

$m(\text{соед}) = 0,1 \cdot 432 + 200 \cdot 0,01 = 43,6 \text{ г} \checkmark$

|   |   |   |   |    |    |    |   |   |    |
|---|---|---|---|----|----|----|---|---|----|
| 1 | 2 | 3 | 4 | 5  | 6  | 7  | 8 | 9 | 10 |
| 6 | 6 | 2 | 2 | 10 | 10 | 12 | 2 | 5 | 5  |

60



№2.1 Пусть  $n(\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}) = x \text{ моль}$

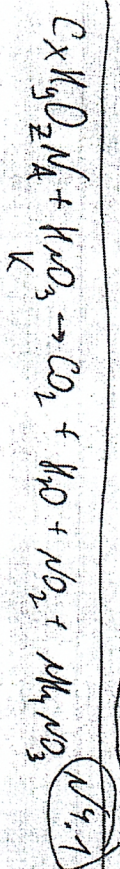
масса  $n(\text{C}_3\text{H}_8\text{O}_3) = y \text{ моль}$

$$0,08 = \frac{20x + 8y}{382x + 92y}$$

$$30,56x + 7,36y = 20x + 8y$$

$$16,56x = 8y$$

$$n(\text{C}_3\text{H}_8\text{O}_3) = \frac{92y}{382x + 92y} = \frac{1518x}{1900x} = \frac{0,7989x}{19,89\%}$$



$$n(\text{CO}_2) = \frac{0,253 \cdot 99,725}{8,37 \cdot 298} = 0,01 \text{ моль} \quad n(\text{C}) = 0,01 \text{ моль}$$

$$n(\text{H}_2\text{O}) = \frac{0,252}{18} = 0,014 \text{ моль} \quad n(\text{H}) = 0,028 \text{ моль}$$

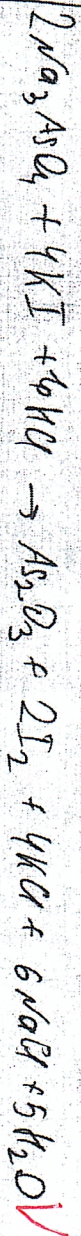
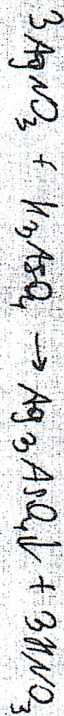
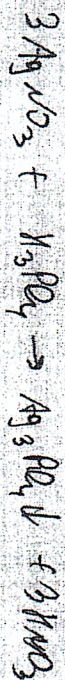
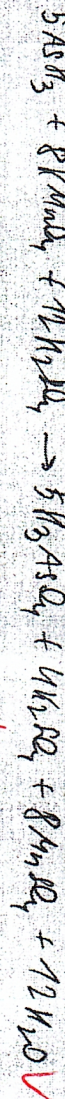
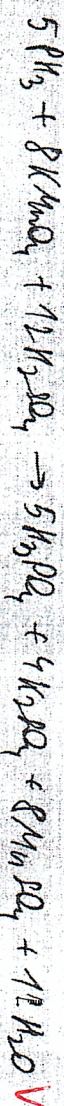
$$n(\text{H}_4\text{N}_2) = \frac{0,1}{80} = 0,00125 \text{ моль} \quad n(\text{N}) = 0,0025 \text{ моль}$$

масса на 1 моль:  $m(\text{N}) = 0,07 \text{ г}$

$$m(\text{O}) = 0,267 - 0,11 - 0,018 - 0,07 = 0,049 \text{ г}$$

$$\Rightarrow \text{на } \text{C}_3\text{H}_8\text{O}_3 \cdot \text{Смесь} \quad n(\text{O}) = 0,03 \text{ моль}$$

№5.1  $2\text{Na}_3\text{AsO}_4 + 17\text{H}_2\text{O}_2 + 8\text{Zn} \rightarrow 3\text{Na}_2\text{SO}_4 + 8\text{ZnSO}_4 + 2\text{AsH}_3 + 8\text{H}_2\text{O}$



Пусть  $n(\text{PH}_3) = x \text{ моль} \quad n(\text{AsH}_3) = y \text{ моль}$

$$n(\text{AsH}_3) = y \text{ моль}$$

$$\frac{34x + 78y}{x + y} = 48,668$$

$$\frac{x}{y} = \frac{2}{1} \Rightarrow 132,1 = 2 \cdot 419 \cdot z + 463z \quad z = 0,1$$

$$\frac{x}{y} = \frac{2}{1} \Rightarrow 132,1 = 2 \cdot 419 \cdot z + 463z \quad z = 0,1$$

Пусть  $n(\text{As}_2\text{O}_3) = z \text{ моль}$

По соотношениям в реакциях получим  $x$  моль,  $y$  моль  $n(\text{As}_2\text{O}_3) = z \text{ моль}$

$$\text{масса } m(\text{As}_2\text{AsO}_4) = 20,8 \text{ г}$$

$$m(\text{I}_2) = 254 \cdot 0,1 = 25,4 \text{ г}$$



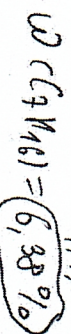
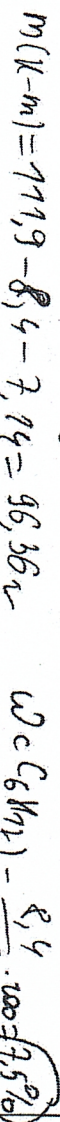
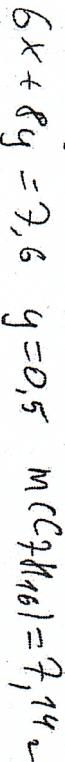
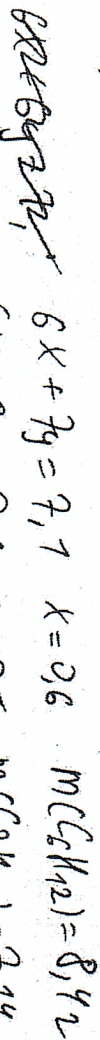
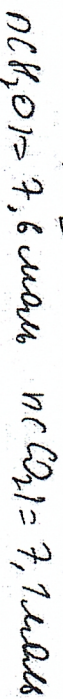
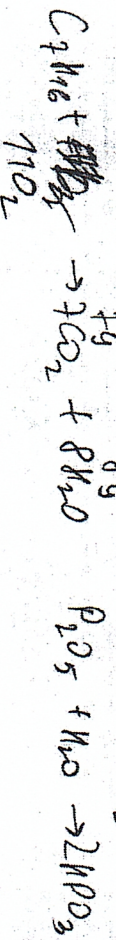
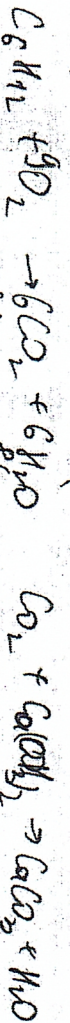
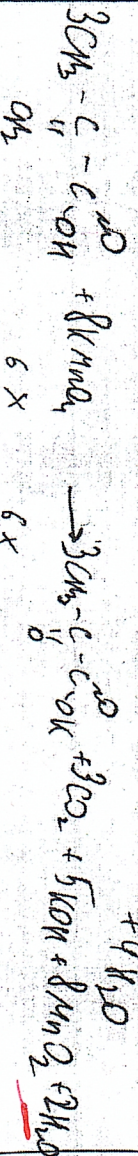
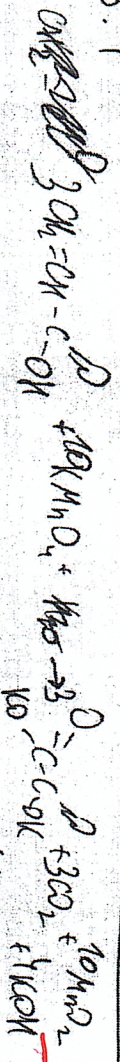
№4.1 Проблемное

$n(C): n(H): n(O) = 0,01:0,018:0,03:0,005 = 10:18:3:5$

$C_{10}H_{18}O_3$  №5 - проблемное 6.69

$n_{max} e = 147$

№3.1



№3.1 Проблемное

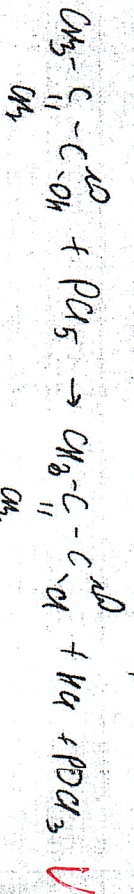
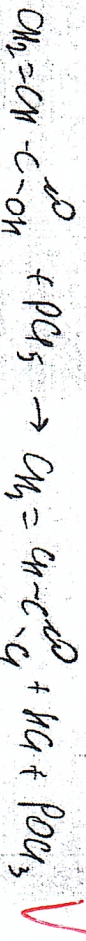
$n(KMnO_4) = 1,1 \cdot 0,083333 = 0,1 \text{ ммоль}$

$96,36 = 72x + 86y$

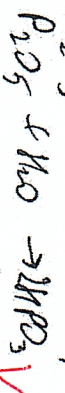
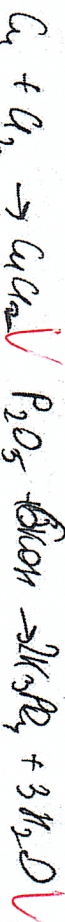
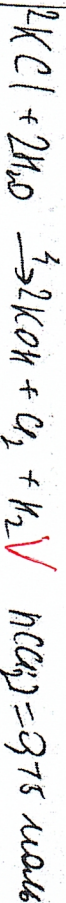
Решим  $n(C_3H_4O_2) = x \text{ ммоль} \quad n(C_4H_6O_2) = y \text{ ммоль}$

$3,333x + 2,6667y = 0,1$

$y = 0,1 - 1,25x$

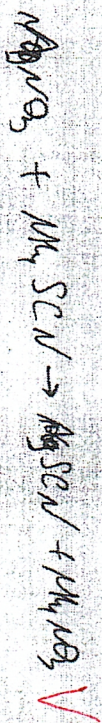
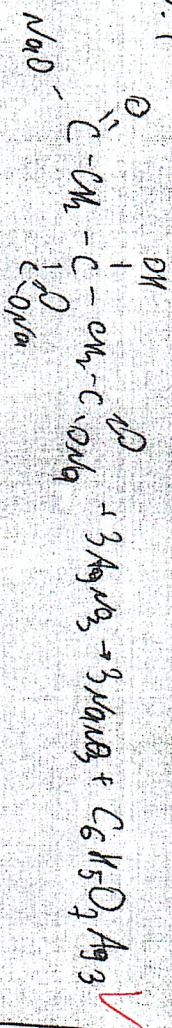


№3.1  $m(KCl) = 44 \cdot 0,05 = 2,2 \text{ г}$   $n(KCl) = 0,03 \text{ ммоль}$





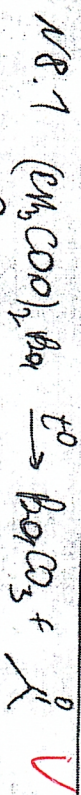
N2O.1



$$n(\text{MgSCN}) = 0,1 \cdot 0,015 = 0,0015 \text{ моль} \Rightarrow n(\text{AgNO}_3) = \underline{0,0015 \text{ моль}}$$

$$n(\text{AgNO}_3) = 0,1 \cdot 0,06 = 0,006 \text{ моль} \Rightarrow n(\text{AgNO}_3) = 0,0045 \text{ моль} \quad \text{на реакцию 1}$$

$$n(\text{C}_6\text{H}_5\text{O}_2\text{Ag}_3) = 0,0015 \text{ моль} \Rightarrow m(\text{C}_6\text{H}_5\text{O}_2\text{Ag}_3) = \underline{0,387 \text{ г}}$$



$$n(\text{CH}_3\text{COO})_2\text{Ba} = \frac{104}{285} = 0,364 \text{ моль} \Rightarrow n(\text{C}_3\text{H}_7\text{CO}_2) = \underline{0,728 \text{ моль}} \quad \checkmark$$

$$m(\text{C}_3\text{H}_7\text{CO}_2) = 46,4 \text{ г}$$

$$n(A) = \frac{37,2}{87} = 1,2 \text{ моль} \quad \checkmark$$