

60 минут

1	2	3	4	5	6	7	8	9	10
8	10	10	8		10	16	8		

№1



$$H = Cl - y$$

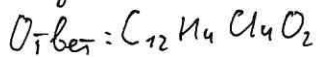
$$H = 20 - 0,5y$$

$$3H = C - 3y$$

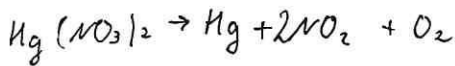
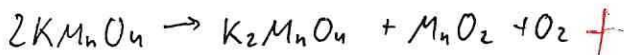
$$y + y + 0,5y + 3y = 22$$

$$5,5y = 22$$

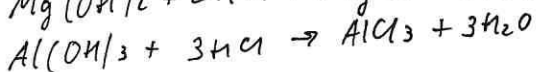
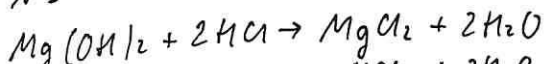
$$y = 4$$



№2



№3



$$58x + 78y = 282$$

$$2x + 3y = \frac{3193,45 \cdot 0,12}{36,5} = 10,5$$

$$\begin{cases} 58x + 78y = 282 \\ 2x + 3y = 10,5 \end{cases} \Rightarrow \begin{cases} 58x + 78y = 282 \\ 52x + 48y = 243 \end{cases} \Rightarrow \begin{cases} 6x = 9 & x = 1,5 \\ y = (10,5 - 2 \cdot 1,5) : 3 = 2,5 \end{cases}$$

$$x = 1,5$$

$$y = 2,5$$

$$m(Al(OH)_3) = n \cdot M = 1,5 \cdot 78 = 117$$

$$m(Mg(OH)_2) = n \cdot M =$$

$$m(Al(OH)_3) = n \cdot M = 2,5 \cdot 78 = 195$$

$$m(Mg(OH)_2) = n \cdot M = 1,5 \cdot 78 = 117$$

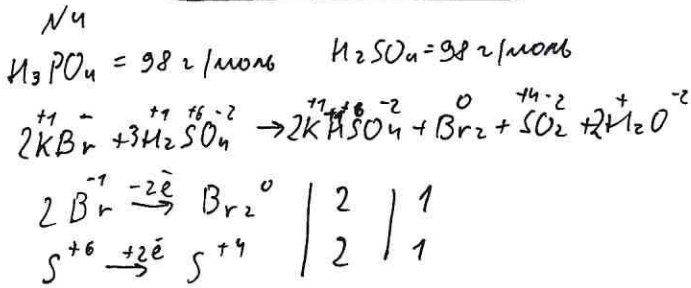
$$\omega(Al(OH)_3) = \frac{195}{282} \cdot 100\% = 69,149\% \approx 69,15\%$$

$$\omega(Mg(OH)_2) = \frac{117}{282} \cdot 100\% = 41,49\% \approx 41,5\%$$

Ответ: $\omega(Al(OH)_3) = 69,15\%$

$\omega(Mg(OH)_2) = 30,85\%$

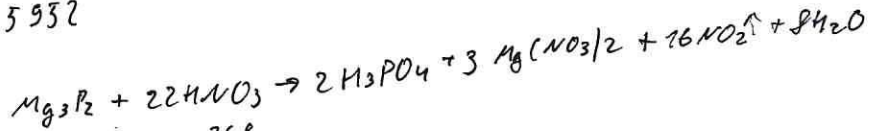




N6
 $\frac{X_3P_2}{XCO_3} = 1,5952$; $\frac{3x + 31 \cdot 2}{x + 60} = 1,5952$

$3x + 62 = 1,5952(x + 60)$
 $3x + 62 = 1,5952x + 95,712$
 $3x - 1,5952x = 95,712 - 62$
 $1,4048x = 33,712$
 $x = 23,998 \approx 24$

$M(Mg) = 24 \text{ г/моль}$



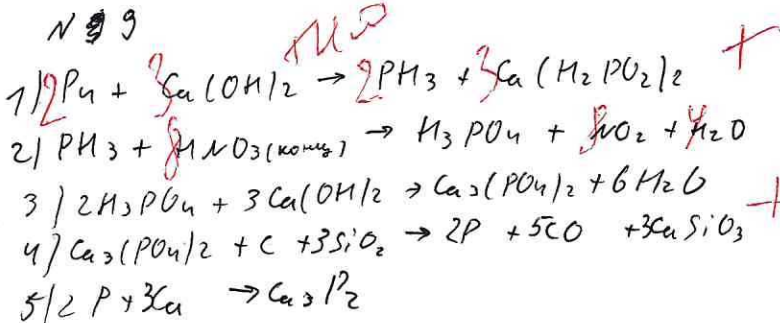
$\nu(Mg_3P_2) = \frac{m}{M} = \frac{26,8 \text{ г}}{134 \text{ г/моль}} = 0,2 \text{ моль}$

$\nu(NO_2) = 3,2 \text{ моль}$

$m(NO_2) = 3,2 \cdot 46 = 147,2 \text{ г}$

Ответ: 147,2 г

+ 105



80

+ 68

