

II ( )

8

1.

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

-10

2.

:

( ) . (3 )

- ,

· (3 ) ,

2. , 5 . 220 . ( 3), ?

:

1) ( 3) = 100 / . (1 )

2)

w (Ca) = 40 / 100 = 0,4. (1 )

3)

m (Ca) = w (Ca) · m (CaCO<sub>3</sub>) = 0,4 · 5 = 2 .

, 2 . (1 )

4) 2 · 220 = 440 .

(1 )

3.

, ? , ? .

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1) 6 . (1 )

2)

- , ,

, . . . . (3 )

3)

(1 ) , , - .

3.

- :
1.  $V(\text{Au}) = (0,1)^3 = 0.001 = 1 \cdot 10^{-3} \text{ m}^3$  (1)
  2.  $p = 19,3 \text{ g/cm}^3$   
 $m(\text{Au}) = p \cdot V(\text{Au}) = 1 \cdot 10^{-3} \cdot 19,3 = 19,3 \cdot 10^{-3} \text{ g}$  (1)
  3.  $Ar(\text{Au}) = 197$   
 $r(\text{Au}) = 197$   
 $n(\text{Au}) = m(\text{Au}) : Ar(\text{Au}) = 19,3 \cdot 10^{-3} : 197 = 1 \cdot 10^{-4}$  (1)
  4.  $N(\text{Au}) = n(\text{Au}) \cdot N_A(\text{Au}) = (1 \cdot 10^{-4}) \cdot (6,02 \cdot 10^{23}) = 6,02 \cdot 10^{19}$  (1)

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#### 4.

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1.  $Mr(\text{H}_2\text{O}) = 18$   
 $M(\text{H}_2\text{O}) = 18 \text{ g/mol}$   
 $n(\text{H}_2\text{O}) = 58$   
 $m(\text{H}_2\text{O}) = n(\text{H}_2\text{O}) \cdot M(\text{H}_2\text{O}) = 58 \cdot 18 = 1044 \text{ g}$  (1)
  2.  $Mr(\text{Na}_2\text{SO}_4) = 142$   
 $M(\text{Na}_2\text{SO}_4) = 142 \text{ g/mol}$   
 $n(\text{Na}_2\text{SO}_4) = 1,5$   
 $m(\text{Na}_2\text{SO}_4) = n(\text{Na}_2\text{SO}_4) \cdot M(\text{Na}_2\text{SO}_4) = 1,5 \cdot 142 = 213 \text{ g}$  (1)
  3.  $m(\text{mixture}) = m(\text{H}_2\text{O}) + m(\text{Na}_2\text{SO}_4) = 1044 + 213 = 1257 \text{ g}$  (1)
  4.  $w(\text{Na}_2\text{SO}_4) = m(\text{Na}_2\text{SO}_4) : m(\text{mixture}) = 213 : 1257 \cdot 100\% = 17\%$  (1)

: 17%.

- 4 .

