

1.

... : aqua marina –
 ...
 ... 5% , 31% , 10%

- 1.
- 2.
- 3.

:

()	
() = 100% - (5% + 31% + 10%) = 54%	2
100	2
$n(\text{Be}) : n(\text{Si}) : n(\text{Al}) : n(\text{S}) = \frac{5}{9} = \frac{31}{28} = \frac{10}{27} = \frac{54}{x} = 0,56 : 1,11 : 0,37 : \frac{54}{x} =$ $= 1,5 : 3 : 1 : \frac{146}{x} = 3 : 6 : 2 : \frac{292}{x}$	4
<p>...</p> <p>9 ($\frac{292}{32} = 9$) ;</p> <p>18 ($\frac{292}{16} = 18$)</p>	2
$\text{Be}_3\text{Si}_6\text{Al}_2\text{S}_9$	2
$3\text{BeS} \cdot 6\text{SiS}_2 \cdot \text{Al}_2\text{S}_3,$	2
$: \text{Al}_2[\text{Be}_3(\text{Si}_6\text{O}_{18})],$	2
	20

2.

5,84

437

17°

98642

, 4,672 .

1.

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2.

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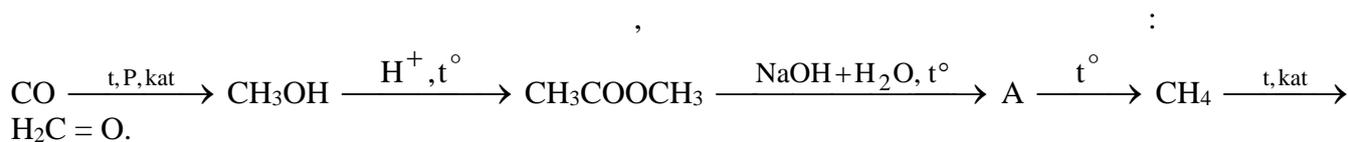
3.

4.

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()	
$m(\text{Me}) - m(\text{Cu}) = 5,84 - 4,672 = 1,168$ ()	2
$V_0 = \frac{PVT_0}{P_0T} = \frac{98642 \cdot 437 \cdot 273}{101325 \cdot 290} = 400$ ()	4
$\text{Me} + 2\text{HCl} = \text{MeCl}_2 + \text{H}_2$	2
$n(\text{Me}) = n(\text{H}_2), \quad \frac{m(\text{Me})}{M(\text{Me})} = \frac{V(\text{H}_2)}{V_m}$	2
$M(\text{Me}) = \frac{m(\text{Me}) \cdot V_m}{V(\text{H}_2)} = \frac{1,168 \cdot 22,4}{0,4} = 65,4$ (/)	2
-	2
(80-90%) . (70%) .	2
	2
$\text{Zn} + 2\text{NaOH} + 2\text{H}_2\text{O} = \text{Na}_2[\text{Zn}(\text{OH})_4] + \text{H}_2$	2
	20

3.



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()	
$\text{CO} + 2\text{H}_2 \xrightarrow{t, P, \text{kat}} \text{H}_3\text{OH}$	4

$\text{CH}_3\text{OH} + \text{CH}_3\text{COOH} \xrightarrow{\text{H}^+, t^\circ} \text{CH}_3\text{COOCH}_3 + \text{H}_2\text{O}$	4
$\text{CH}_3\text{COOCH}_3 + \text{NaOH} \xrightarrow{t^\circ} \text{CH}_3\text{COONa} + \text{CH}_3\text{OH}$	4
$\text{CH}_3\text{COONa}(\text{ }) + \text{NaOH}(\text{ }) \xrightarrow{t^\circ} \text{CH}_4 + \text{Na}_2\text{CO}_3$	4
$\text{CH}_4 + \text{O}_2 \xrightarrow{t, \text{kat}} \text{H}_2\text{C} = \text{O} + \text{H}_2\text{O}$	4
	20

4.

10,8

36

1. ?

2. .

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$2 + 1$, $2 + 1$	2
:	1
$2 + 1 + 2 + 1 = 2 + 1 + 2 + 1$	1
$2 + 1 + 2 + 1 = 2 + 1 + 2 + 1$	1
$2 + 1 + 2 + 1 = 2 + 1 + 2 + 1$	1
, :	2
$n(\text{H}_2\text{O}) = \frac{m(\text{H}_2\text{O})}{M(\text{H}_2\text{O})} = \frac{10,8}{18} = 0,6(\text{ })$	
$n(\text{C}_2\text{H}_6) = n(\text{C}_2\text{H}_4)$, 1:1.	2
$0,6:3 = 0,2$.	2
$(\text{C}_2\text{H}_6 \text{ C}_2\text{H}_4) = 12 + 2 + 1 + 16 + 12 + 2 + 1 = 28 + 18(\text{ / })$	1
$(\text{C}_2\text{H}_6 \text{ C}_2\text{H}_4) = 12 + 2 + 1 + 16 + 12 + 2 + 1 = 28 + 18(\text{ / })$	1
$(\text{C}_2\text{H}_6 \text{ C}_2\text{H}_4) = 12 + 2 + 1 + 16 + 12 + 2 + 1 = 14 + 14 + 18(\text{ / })$	1
, $m = n \cdot M$	1
$0,2(28 + 18) + 0,2(28 + 18) + 0,2(14 + 14 + 18) = 36$	2
$42(\text{ + }) = 128 + = 3$	1
«3» «1» «2», ,	1
.	1
3 2 5	
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5.

1.

2.

3.

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$5 \text{NO}_2 + 2\text{KMnO}_4 + 3\text{H}_2\text{SO}_4 = 5\text{KNO}_3 + 2\text{MnSO}_4 + \text{K}_2\text{SO}_4 + 3\text{H}_2\text{O}$	3
	1
$5\text{K}_2\text{S} + 2\text{KMnO}_4 + 8\text{H}_2\text{SO}_4 = 5\text{S} + 2\text{MnSO}_4 + 6\text{K}_2\text{SO}_4 + 8\text{H}_2\text{O}$	3
	1
$10\text{KI} + 2\text{KMnO}_4 + 8\text{H}_2\text{SO}_4 = 5\text{I}_2 + 2\text{MnSO}_4 + 6\text{K}_2\text{SO}_4 + 8\text{H}_2\text{O}$	3
	1
$5\text{K}_2\text{C}_2\text{O}_4 + 2\text{KMnO}_4 + 8\text{H}_2\text{SO}_4 = 10\text{CO}_2 + 2\text{MnSO}_4 + 6\text{K}_2\text{SO}_4 + 8\text{H}_2\text{O}$	3
	1
$5\text{K}_2\text{O}_2 + 2\text{KMnO}_4 + 8\text{H}_2\text{SO}_4 = 5\text{O}_2 + 2\text{MnSO}_4 + 6\text{K}_2\text{SO}_4 + 8\text{H}_2\text{O}$	3
	1
	20