

ШИФР 103446

Класс 10 Вариант 5 Дата Олимпиады 19.02.23

Площадка написания Девний Университет

Задача	1	2	3	4	5	6	7	8	9	10	Σ		Подпись
											Цифрой	Прописью	
Оценка											75	семьдесят пять	

10 12 2 18 9 10 0 ~ 119

$V(\text{CO}_2) = ?$   
 $m(\text{CaCO}_3) = 300 \text{ г}$   
 $w(\text{CaCO}_3) = 80\% (0,8)$

$\text{CaCO}_3 + 2\text{HCl} \rightarrow \text{CaCl}_2 + \text{H}_2\text{O} + \text{CO}_2$   
 $m(\text{CaCO}_3) = 300 \cdot 0,8 = 240 \text{ г}$   
 $n(\text{CaCO}_3) = \frac{240 \text{ г}}{100 \frac{\text{г}}{\text{моль}}} = 2,4 \text{ моль}$   
 $V(\text{CaCO}_3) = V(\text{CO}_2) = 2,4 \text{ моль}$   
 $V(\text{CO}_2) = 2,4 \frac{\text{л}}{\text{моль}} \cdot 2,4 \text{ моль} = 53,76 \text{ л}$   
 Ответ:  $V(\text{CO}_2) = 53,76 \text{ л}$   
 ~ 2. Σ 25

- 1)  $\text{KCl} + \text{H}_2\text{SO}_4 \text{ кон} \rightarrow \text{KHSO}_4 + \text{HCl}$  ✓ 4
  - 2)  $\text{KHSO}_4 + \text{KOH} \rightarrow \text{K}_2\text{SO}_4 + \text{H}_2\text{O}$  ✓ 4
  - 3)  $\text{K}_2\text{SO}_4 + \text{Ba}(\text{NO}_3)_2 \rightarrow \text{BaSO}_4 \downarrow + 2\text{KNO}_3$  ✓ 4
  - 4)  $\text{BaSO}_4 + 2\text{C} \rightarrow \text{BaS} + 2\text{CO}_2$  ✓ 4
- ~ 3. Σ 125

$\text{C}_n\text{H}_{2n}\text{O}_2$   
 $2n + 2 = 74$   
 $n = 36$   
 $0,4325$  ошибка в чем?

$14n + 32 = 74$

$14n = 42$

$n = 3 \Rightarrow \text{C}_3\text{H}_6\text{O}_2 \Rightarrow \text{H}_3\text{C}-\text{C}(=\text{O})-\text{OH}$  ✓ 25

24.

B - кетон  $(C_nH_{2n}O)$

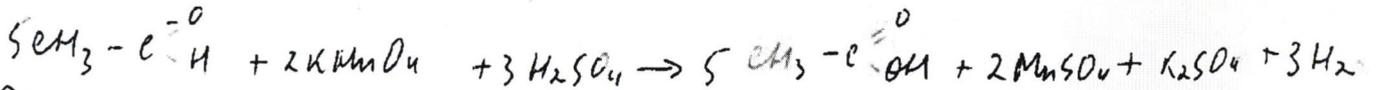
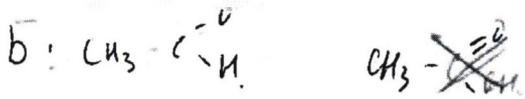
$C_nH_{2n}O_2$

$14n + 32 = 102$

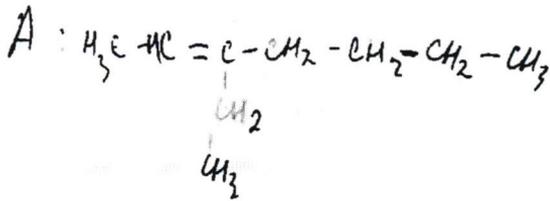
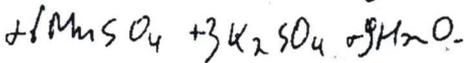
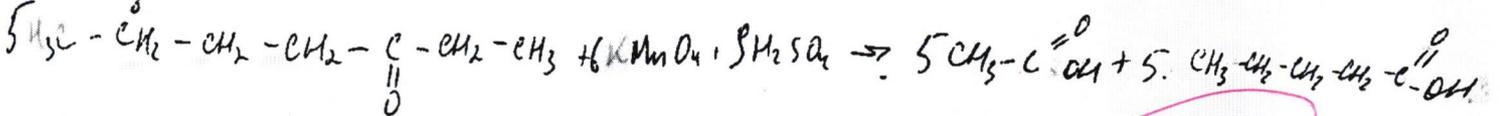
$14n = 70$

$n = 5 \Rightarrow H_3C-CH_2-CH_2-CH_2-C(=O)OH$

✓ 45



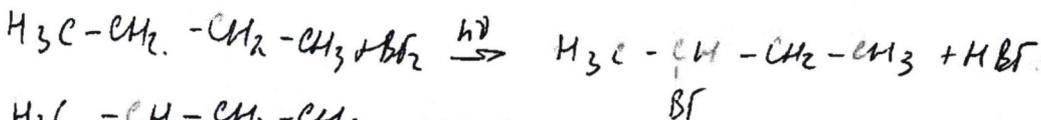
B: 



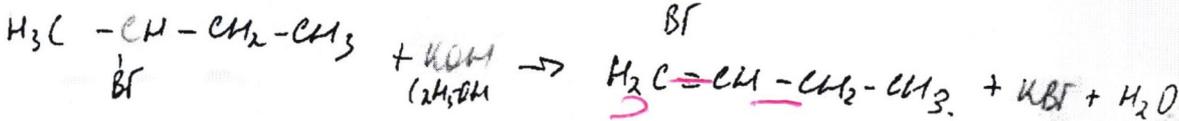
✓ 105

Σ 185

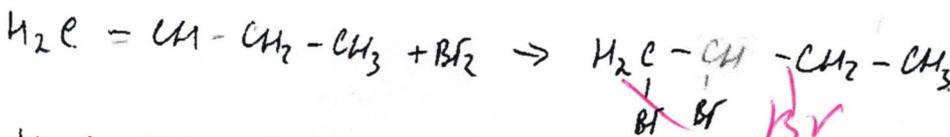
25.



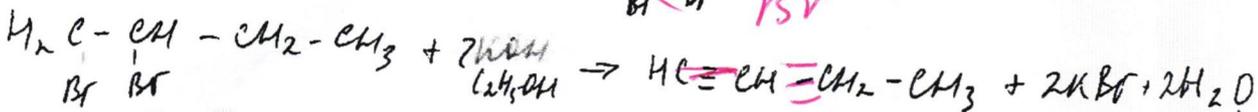
✓ 4



✓ 2



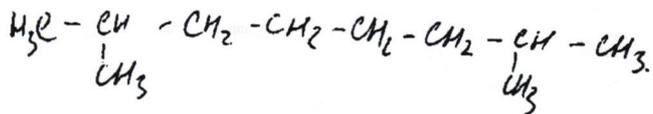
✓ 2



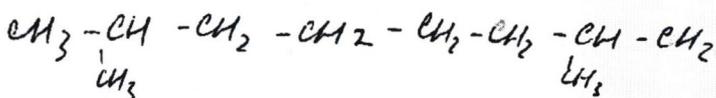
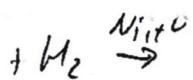
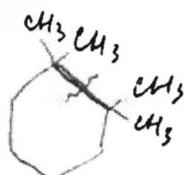
✓ 1

Σ 95

н.б.



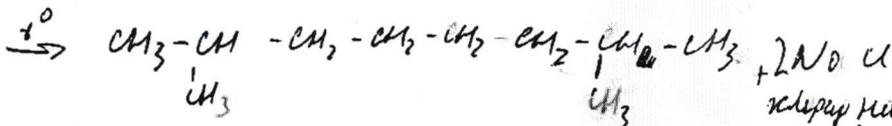
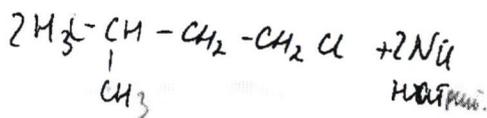
1) с наименьшим числом атомов:



✓4

1,1,2,2-тетраметилциклогексан

2) с наименьшим числом атомов:

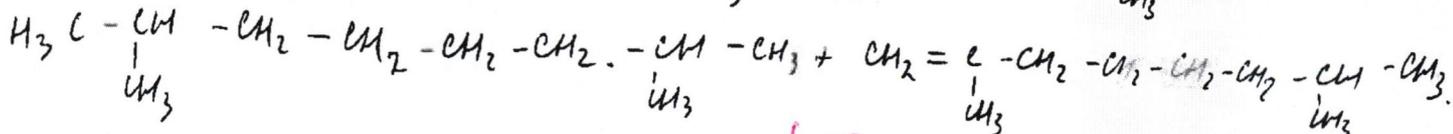
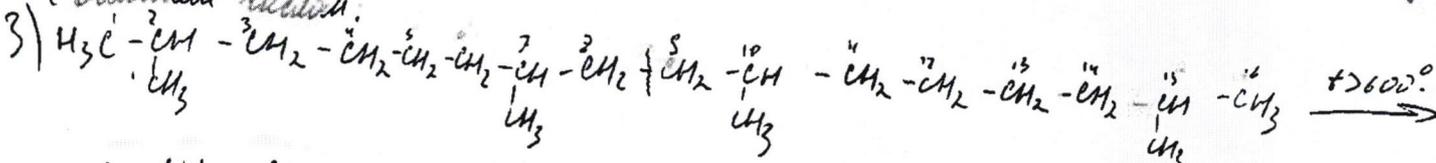


хлорид никеля  
тетраметилциклогексан  
оксид никеля  
хлор

✓4

3-метил-1-хлорбутан

с наименьшим числом атомов:



✓28 2,4-диметилпентен-1

Σ 105.

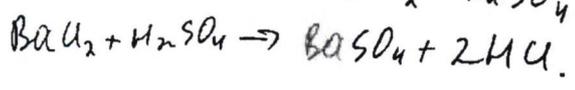
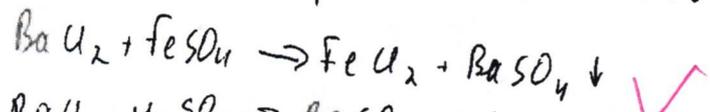
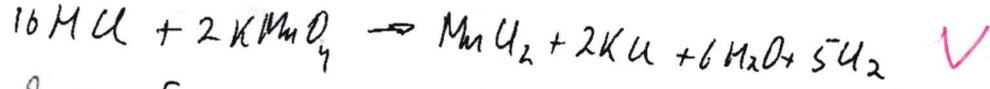
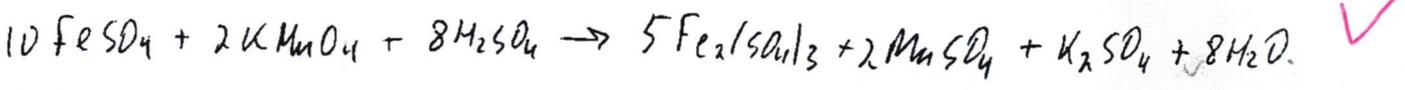


$\text{NaCl}$  ;  $\text{H}_2\text{SO}_4$  ;  $\text{KMnO}_4$  ;  $\text{HNO}_3$  ;  $\text{BaCl}_2$  ;  $\text{FeSO}_4$  ;  $\text{HCl}$   
 соль ; кислота ; окислитель ; кислота ; соль ; соль ; кислота

№8

- 1)  $\text{HCl}$  +
- 2)  $\text{HNO}_3$  +
- 3)  $\text{H}_2\text{SO}_4$  +
- 4)  $\text{KMnO}_4$  +
- 5)  $\text{FeSO}_4$  +
- 6)  $\text{NaCl}$  +    *нб*
- 7)  $\text{BaCl}_2$  +

*где определить формулы  
и отметить  
реакции образования  
осадков?*



*V105*  
*Σ 148*