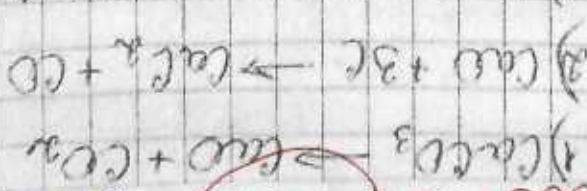


Marayaka
Cepes 1000

1000

① Arno:
m(CaCO₃) = 142.5 kg
Wasseranteil = 15%
n = 80%



1) $m(\text{CaCO}_3) = 142.5 - 0.85 = 146.625 \text{ (kg)}$
 $m(\text{CaCO}_3) = 146.625 \cdot 1000 = 146625 \text{ g}$

2) $n(\text{CaCO}_3) = \frac{m}{M} = \frac{146625}{100} = 1466.25 \text{ (mmol)}$

$M(\text{CaCO}_3) = 100 \text{ (g/mol)}$

3) $n(\text{CaO}) = n(\text{CaCO}_3) = 1466.25 \text{ (mmol)}$

$n(\text{CaO}) = n(\text{CaC}_2) = 1466.25 \text{ (mmol)}$

$n(\text{CaC}_2) = n(\text{CH}\equiv\text{CH}) = 1466.25 \text{ (mmol)}$

4) $V(\text{CH}\equiv\text{CH}) = n \cdot 22.4 = 1466.25 \cdot 22.4 =$

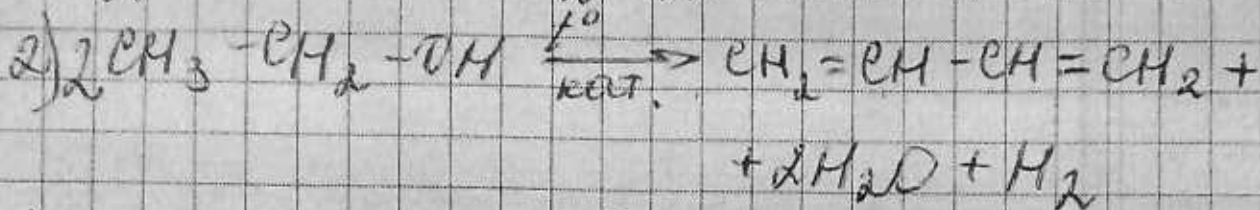
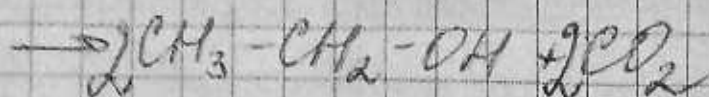
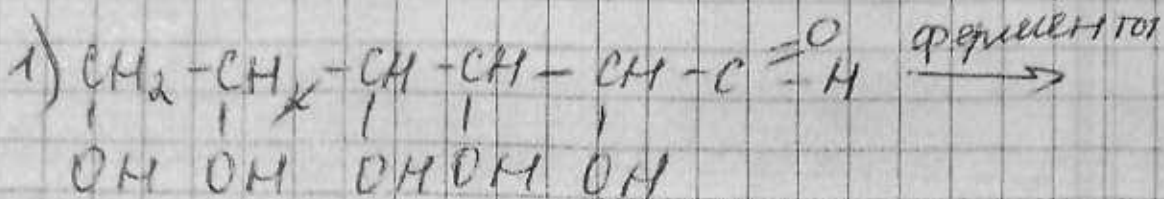
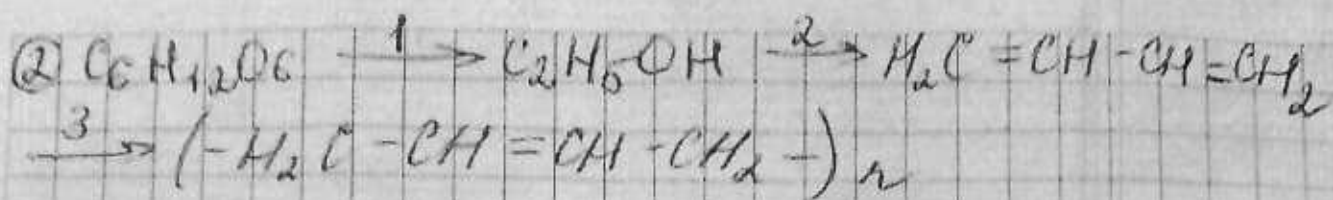
$= 32844 \text{ (l)}$

$V(\text{CH}\equiv\text{CH}) = V(\text{CH}\equiv\text{CH}) \cdot 7 = 32844 \cdot 0.8 =$

$= 26275.2 \text{ (l)}$

$+ \text{Arbeitsm. } 26675.2 \text{ l}$

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2 и 3 этапы разработаны Лебедев

③ Общая формула гомологического ряда алканов $\text{C}_n\text{H}_{2n+2}$

В 1 моль алкана:

$$3n+2 = 2 \cdot 3,314 \cdot 10^{24}$$

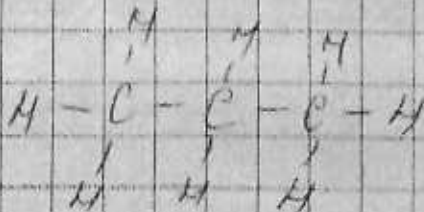
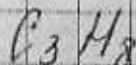
$$(3n+2) \cdot 6 \cdot 10^{23} = 2 \cdot 3,314 \cdot 10^{24}$$

$$(18n+12) \cdot 10^{23} = 6,628 \cdot 10^{24}$$

$$18n+12 = 66,28$$

$$18n = 54,28$$

$$n = 3$$



ответ: 10 н-алканов

④ Дано:
 $V_{\text{бенз}} = 20,1$
 $V_{\text{бенз}} = 19,44$
 $+ Br_2$ (вода)
 $\Delta m = 14g$
 $C_{10}H_{12}$

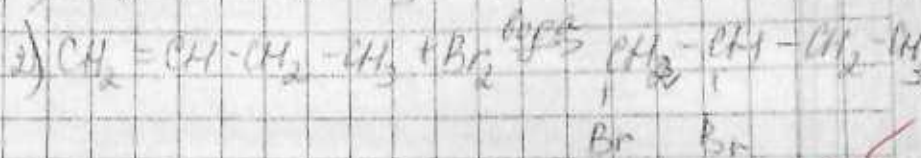
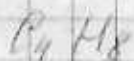
Углерода = $20,1 - 19,44 = 0,66$
 Масса = $\frac{0,66}{12} = 0,055$ (моль)
 Масса = $\frac{0,66}{0,055} = 12$ (г/моль)

$C_{10}H_{12}$ - это п-на или метилбензол

$12n + 2m = 56$

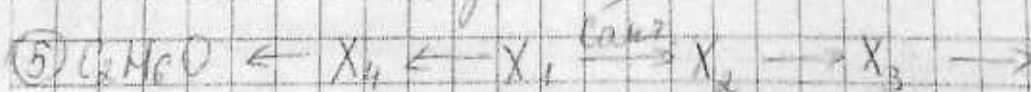
$14n = 56$

$n = 4$

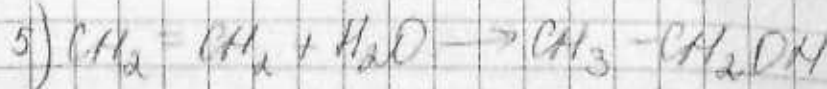
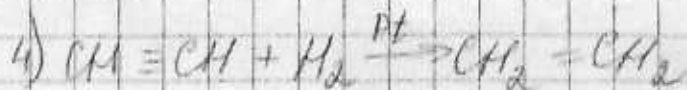
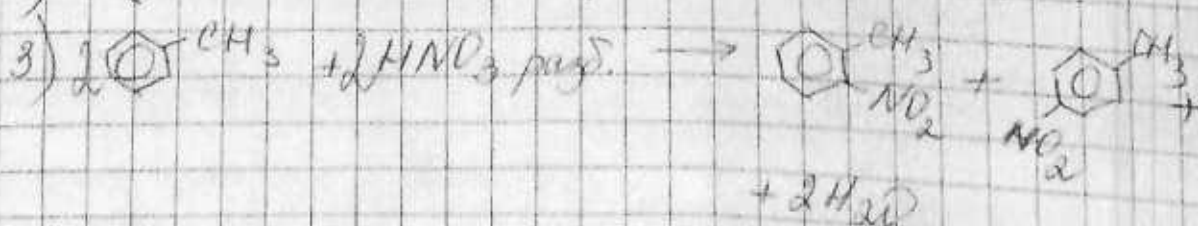
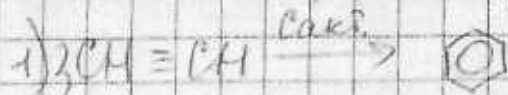


Ответ: C_4H_8 (бутен)

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\rightarrow эт-нитроэтанол



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