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$1,5351 \cdot 10^{25}$ at. — x moli Fe

$6,02 \cdot 10^{23}$ at. — 1 mol

$$x = \frac{1,5351 \cdot 10^{25} \cdot 1}{6,02 \cdot 10^{23}}$$

$$x = 25,5 \text{ mola}$$

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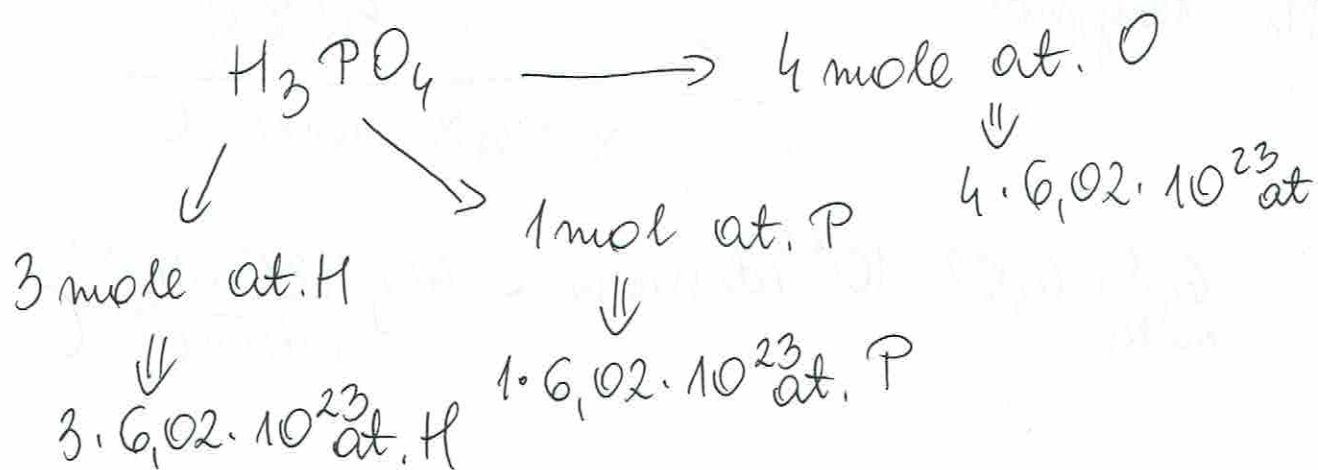
0,17 mola — x cz. H_2SO_4

1 mol — $6,02 \cdot 10^{23}$ cz. H_2SO_4

$$x = \frac{0,17 \cdot 6,02 \cdot 10^{23}}{1}$$

$$x = 1,02 \cdot 10^{23} \text{ cz. } \text{H}_2\text{SO}_4$$

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Razem: $8 \cdot 6,02 \cdot 10^{23}$ at. wszystkich p

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a w 2,5 mola H_3PO_4 jest:

$$H: \underbrace{2,5 \cdot 3 \cdot 6,02 \cdot 10^{23}}_{\text{atomów}}$$

$$P: \underbrace{2,5 \cdot 1 \cdot 6,02 \cdot 10^{23}}_{\text{atomów}}$$

$$O: \underbrace{2,5 \cdot 4 \cdot 6,02 \cdot 10^{23}}_{\text{atomów}}$$

MASA MOLOWA:

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$$M_{P_4O_{10}} = 4 \cdot 31 + 1 \cdot 16 = 284 \text{ g/mol}$$

$$1,8 \text{ mola } P_4O_{10} - x \text{ g}$$

$$1 \text{ mol} - 284 \text{ g}$$

$$x = \frac{1,8 \cdot 284}{1} = 511,2 \text{ g}$$

masa 1,8 mola

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$$M_C = 12 \text{ g/mol}$$

$$1 \text{ mol } C - 12 \text{ g}$$

$$x - 82,8 \text{ g}$$

$$x = 6,8 \text{ mola } C$$

$$6,8 \text{ mola} \cdot 6,02 \cdot 10^{23} \text{ atomów} = \frac{40,936 \cdot 10^{23}}{\text{atomów } C}$$

INNE JEDNOSTKI

$$1 \text{ kilomol} = 10^3 \text{ mola} = 1000 \text{ moli}$$

(kmol)

$$1 \text{ milimol} = 10^{-3} \text{ mola} = 0,001 \text{ mola}$$

(mmol)

$$1 \text{ mikromol} = 10^{-6} \text{ mola} = 0,000001 \text{ mola}$$

(μ mol)

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$$1 \text{ kmol} = 1000 \text{ moli}$$

$$0,4 \text{ kmol} = 400 \text{ moli}$$

$$M_{\text{HBr}} = 1 + 79 = 80$$

$$\frac{400}{\text{moli}} \cdot 80 \text{ g/mol} = 32000 \text{ g} = \underline{\underline{32 \text{ kg}}}$$