

$$2) \quad \underline{I} = \frac{\boxed{C \cdot t \cdot n}}{100} \leftarrow X$$

$$\underline{I} = \frac{X}{100}$$

$$\underline{I} = \frac{X}{100}$$

$$\underline{I} \cdot 100 = X$$

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$$100 = \frac{X}{\underline{I}}$$

$$\underline{I} \cdot 100 = \boxed{C \cdot t \cdot n}$$

$$\underline{I} \cdot 100 = C \cdot \boxed{t \cdot n} \leftarrow Y$$

$$\underline{I} \cdot 100 = C \cdot Y$$

$$\frac{\underline{I} \cdot 100}{Y} = C \quad C = \frac{\underline{I} \cdot 100}{\boxed{t \cdot n}}$$

Application: $\underline{I} = 1200$ $t = 3$ $n = 5$

$$C = \frac{1200 \cdot 100}{3 \cdot 5} = 400 \cdot 20 = 8000$$

Il faut placer un capital de 8000 fr.

b) On sait déjà que

$$\underline{I} \cdot 100 = C \cdot t \cdot n$$

$$\underline{I} \cdot 100 = \boxed{C \cdot n} \cdot t$$

$$\frac{\underline{I} \cdot 100}{\boxed{C \cdot n}} = t$$

$$t = \frac{\underline{I} \cdot 100}{C \cdot n}$$

Application : $I = 1500$ $C = 10\,000$

$$n = 4$$

$$t = \frac{1500 \cdot 100}{10\,000 \cdot 4} = \frac{150\,000}{10\,000 \cdot 4} = \frac{15}{4} = 3,75$$

Le taux cherché est de 3,75 %

c) Vu que $I \cdot 100 = C \cdot t \cdot n$, on a

$$I \cdot 100 = \boxed{C \cdot t} \cdot n$$

$$\frac{I \cdot 100}{C \cdot t} = n$$

$$n = \frac{I \cdot 100}{C \cdot t}$$

Application: $I = 1200$ $C = 8000$

$$t = 2,5$$

$$n = \frac{1200 \cdot 100}{8000 \cdot 2,5} = \frac{120000}{20000} = 6$$

Il faut placer le capital pendant 6 ans.