

$$1/ \log 18 = \log(3^2 \cdot 2) = 2\log 3 + \log 2 = 2\log 3 + \log \frac{10}{5} = 2\log 3 + \log 10 - \log 5 = \underline{2B + 1 - A}$$

Datos $\log 5 = A$
 $\log 3 = B$

$$2/ 1000 \text{ €} \quad F = I \left(1 + \frac{i}{k}\right)^{kt}$$

5% i ?
trimestral
 $n = 100$

$$\log F = \log I + kt \log \left(1 + \frac{i}{k}\right)$$

$$t = \frac{\log F - \log I}{k \log \left(1 + \frac{i}{k}\right)} = \frac{\log 1100 - \log 1000}{4 \log \left(1 + \frac{0,05}{4}\right)}$$

$$\boxed{t = 1,918 \text{ años}}$$

$$3/ \text{Crédito } 100000 \text{ €}$$

4,8% $t = 30$ años
mensualidad?

$$M = \frac{C \frac{i}{k} \left(1 + \frac{i}{k}\right)^{kt}}{\left(1 + \frac{i}{k}\right)^{kt} - 1} = \frac{100000 \frac{0,048}{12} \left(1 + \frac{0,048}{12}\right)^{12 \cdot 30}}{\left(1 + \frac{0,048}{12}\right)^{12 \cdot 30} - 1} = \underline{524,67 \text{ €}}$$

$$4/ \text{TAE? } 5\% \text{ semestral} \quad (1+i)^1 = \left(1 + \frac{0,052}{2}\right)^{2 \cdot 1}$$

$$i = 0,052676$$

$$\boxed{\text{TAE} = 5,27\%}$$

$$5/ 10,5 \cdot 23,33 - 5,003 \cdot 10,15 = 244,965 - 50,78045 = 245 - 50,78 = \underline{194}$$

$$6/ 13x - 11 - 2x = 11 \quad \text{Si } x < \frac{1}{3} \quad -3x + 11 - 2x = 11 \quad 5x = -10 \quad x = -2$$

$$\text{Si } x \geq \frac{1}{3} \quad 3x - 1 - 2x = 11 \quad x = 12 \quad \boxed{-2 \text{ y } 12}$$

$$7/ \text{CEA} = \frac{|11 - 3,31|}{3,1} = 1,0511 \rightarrow 5\%$$

$$8/ \sqrt{\frac{3}{4}} + \sqrt{\frac{9}{3}} - \sqrt[6]{27} + \sqrt{12} = \frac{1}{2}\sqrt{3} + \sqrt{3} - \sqrt{3} + 2\sqrt{3} = \underline{\frac{5}{2}\sqrt{3}}$$

$$9/ \frac{\sqrt[3]{2} \sqrt[3]{12}}{\sqrt[4]{90}} = \frac{12 \sqrt[24]{2^4 \cdot (2 \cdot 3)^4}}{\sqrt[24]{(2 \cdot 3^2 \cdot 5)^3}} = \frac{12 \sqrt[24]{2^9}}{\sqrt[24]{3^2 \cdot 5^3}} = \frac{1}{15} \sqrt[12]{3^{10} \cdot 9 \cdot 2^9}$$

$$10/ \frac{0,001^2 \cdot (10^2)^3}{200^3 \cdot 1000} = \frac{10^{-6} \cdot 10^3}{8 \cdot 10^6 \cdot 10^3} = \frac{10^{-15}}{8} = 0,125 \cdot 10^{-15} = \underline{1,25 \cdot 10^{-16}}$$