

②

<u>Chefs</u>	<u>Raciones</u>	<u>Horas</u>	<u>Comp.</u>
3	120	4	1
x	240	6	2

$$\frac{3}{x} = \frac{120}{240} \cdot \frac{6}{4}$$

$$x = \frac{3 \cdot 240 \cdot 4}{120 \cdot 6} = 4 \xrightarrow{\text{Comp.}} 8 \text{ chefs}$$

La complejidad se
duplica → Doble de tiempo

④

Máquinas	P_z	Días	H/d	V	V aumenta en un 12%
5	1500	10	7	1	V_0
7	3000	x	8	1.12	$+12\%$ $1.12 \cdot V_0$

$\underbrace{\hspace{10em}}_{P.I.}$
 $\underbrace{\hspace{10em}}_{P.D.}$
 $\underbrace{\hspace{10em}}_{P.I.}$

$$\frac{10}{x} = \frac{\cancel{7}}{5} \cdot \frac{\cancel{1500}}{3000} \cdot \frac{8}{\cancel{7}} \cdot \frac{1.12}{1} \rightarrow x = \frac{10 \cdot 5 \cdot 30}{15 \cdot 8 \cdot 1.12} = 11.16 \text{ días}$$

$$\rightarrow \frac{10}{x} = \frac{15 \cdot 8 \cdot 1.12}{5 \cdot 30}$$

ó
12 días completos

16

-25%

$$x \cdot (0,75) \rightarrow \frac{100 - 25}{100} = 1 - 0,25$$

$$x \xrightarrow[-20,63\%]{-r\%} x(1-r) \xrightarrow[-r\%]{-r\%} x(1-r)(1-r) \xrightarrow[-r\%]{-r\%} x(1-r)(1-r)(1-r) = \frac{x}{2}$$

$-20,63\%$
 $x \cdot 0,7937$

$$x \cdot \left(\frac{100 - r\%}{100} \right) = x(1-r)$$

$$(1-r)^3 = \frac{1}{2}$$

$$1-r = \sqrt[3]{\frac{1}{2}}$$

$$1-r = 0,7937$$

$$1 - 0,7937 = r$$

$$0,2063 = r$$

$$r = 20,63\%$$

7

480 pts.
(inversa)

$$\left\{ \begin{array}{l} 4 \rightarrow 960 : 4 = 240 \text{ pts.} \\ 6 \rightarrow 960 : 6 = 160 \text{ pts.} \\ 12 \rightarrow 960 : 12 = 80 \text{ pts.} \end{array} \right.$$

$$\frac{480}{\frac{1}{4} + \frac{1}{6} + \frac{1}{12}} = \frac{480}{\frac{3}{12} + \frac{2}{12} + \frac{1}{12}} = \frac{480}{\frac{6}{12}} = \frac{480}{\frac{1}{2}} = 480 \cdot 2 = 960$$

$$\textcircled{9} \left\{ \begin{array}{l} 4 \rightarrow 540\text{€} \rightarrow 540 : 4 = 135 \\ 7 \rightarrow 135 \cdot 7 = 945\text{€} \\ 9 \rightarrow 135 \cdot 9 = 1215\text{€} \end{array} \right.$$

Total: 2700€

$$\textcircled{13} \quad 250 \text{€}$$

$$-10\% \rightarrow 250 \cdot 0,9 = 225 \text{€}$$

$$-20\% \rightarrow 225 \cdot 0,8 = 180 \text{€}$$

$$\% = \frac{180}{250} \cdot 100 = 72\% \rightarrow \text{Desconto } 28\%$$

$$250 - 180 = 70 \rightarrow \% = \frac{70}{250} \cdot 100 = 28\%$$

$$0,9 \cdot 0,8 = 0,72 \rightarrow 1 - 0,72 = 0,28 = 28\%$$

$$\textcircled{15} \ 180\text{€} \xrightarrow{\cdot 0,88} 158,4\text{€} \xrightarrow{\cdot 1,18} 186,91\text{€}$$

$$-12\% \rightarrow 0,88$$

$$+18\% \rightarrow 1,18$$

$$0,88 \cdot 1,18 = 1,0384 = 103,84\%$$

$$1,0384 - 1 = 0,0384 = 3,84\%$$

$$\frac{\quad}{+6\%}$$

(14) $5000 \text{ €} \xrightarrow{\cdot 1,08} 5400 \text{ €} \xrightarrow{\cdot 1,06} 5724 \text{ €}$

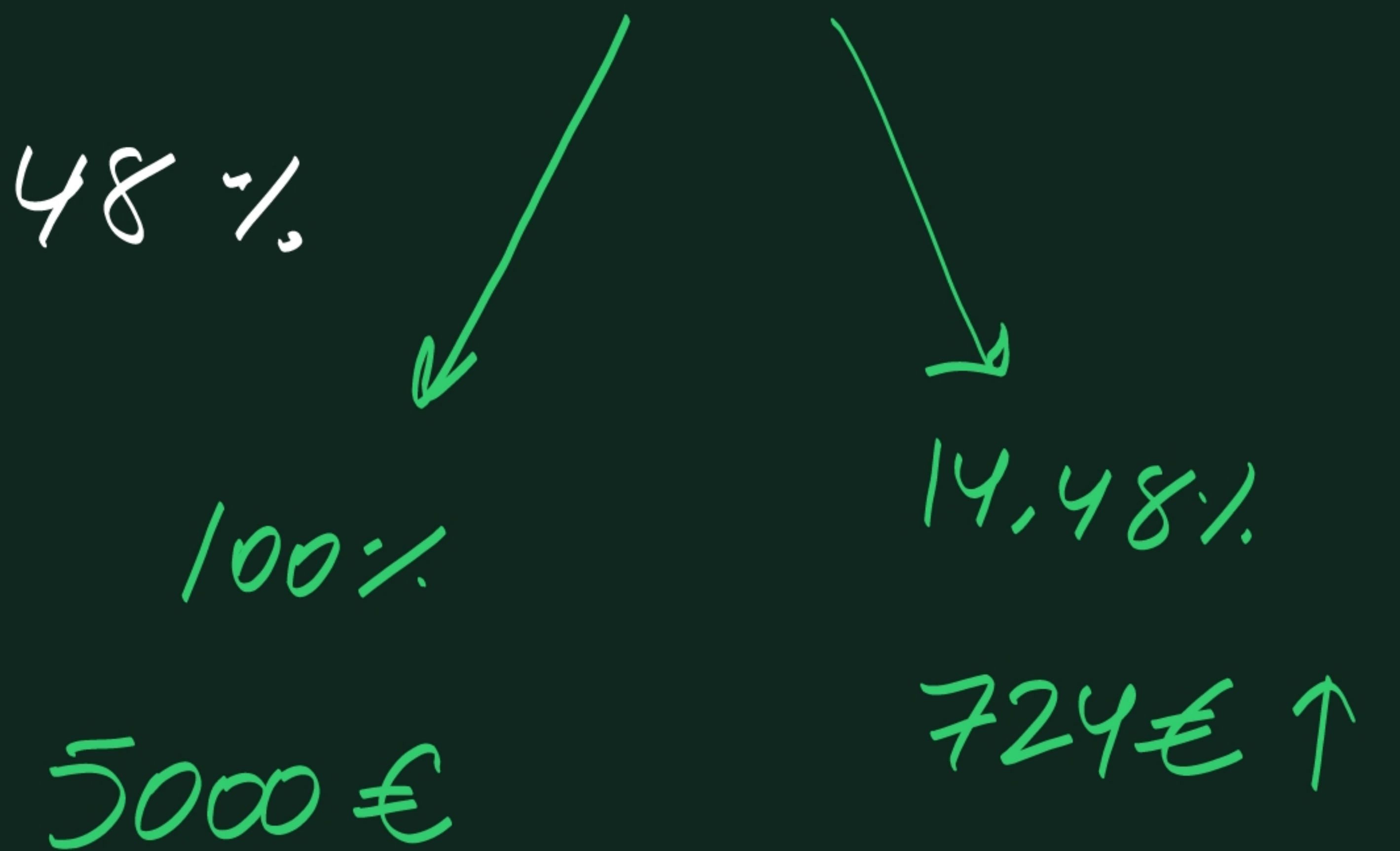
+8% 1^{er} año

+6% 2^o año

$$1,08 \cdot 1,06 = 1,1448 = 114,48\%$$

Aumentó un 14,48%.

$$\% = \frac{724}{5000} \cdot 100 = 14,48\%$$



$$\begin{array}{l} 5000 \text{ — } 100\% \\ 724 \text{ — } x\% \end{array} \quad \uparrow$$