

(21) a) $\frac{3}{2} = \frac{4'5}{3} = \frac{6'75}{4'5} = \frac{10'125}{6'75} = 1'5 = r$ = Si es una p. geom.

b) $r = 1'5$

$a_n = 2 \cdot 1'5^{n-1}$

c) $S_{10} = \frac{a_1 (r^{10} - 1)}{r - 1} = \frac{2 \cdot (1'5^{10} - 1)}{1'5 - 1} = \frac{2 \cdot (57'67 - 1)}{0'5} =$
 $= \frac{2 \cdot 56'67}{0'5} = \frac{113'34}{0'5} = \underline{\underline{226'68}}$

(22) $r = \frac{a_2}{a_1} = \frac{a_3}{a_2} = \frac{a_4}{a_3} // r = \frac{3\sqrt{3}}{3} = \frac{9}{3\sqrt{3}} = \frac{9 \cdot \sqrt{3}}{9} = \sqrt{3}$

$r = \sqrt{3}$

$S_n = \frac{a_1 (r^n - 1)}{r - 1} // S_7 = \frac{3 (\sqrt{3}^7 - 1)}{\sqrt{3} - 1} =$

$= \frac{3 (\sqrt{3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3} - 1)}{\sqrt{3} - 1} = \frac{3 (3^3 \sqrt{3} - 1)}{\sqrt{3} - 1} = \frac{3 (46'77 - 1)}{0'73} =$

$= \frac{137'31}{0'73} = \underline{\underline{188'55}}$

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(23) 10 horas \Rightarrow Se habrá dividido 120 veces

$$a_n = a_1 \cdot r^{n-1}$$

$$a_{120} = 1 \cdot r^{120-1} = 1 \cdot 2^{119} = \underline{\underline{6'646 \cdot 10^{35}}}$$

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(42a) $a_n = \frac{1}{n}$

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(46a) 13, 5

$$d = -8$$

$$a_8 = a_1 + (8-1) \cdot d = 13 + (7) \cdot -8 = 13 - 56 = -43$$

$$\underline{\underline{a_8 = -43}}$$

$$a_n = a_1 + (n-1) \cdot d = 13 + (n-1) \cdot -8$$

(46b) 4'5, 6

$$d = 1'5$$

$$b_{10} = b_1 + (n-1) \cdot d = 4'5 + (10-1) \cdot 1'5 =$$

$$= 4'5 + 9 \cdot 1'5 = 4'5 + 13'5 = \underline{\underline{18}}$$

$$\underline{\underline{b_n = b_1 + (n-1) \cdot 1'5}}$$

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$$(51) d = a_4 - a_3 = \frac{5}{6} - \frac{1}{2} = \frac{5}{6} - \frac{3}{6} = \frac{2}{6} = \frac{1}{3}$$

$$\underline{\underline{d = \frac{1}{3}}}$$

$$a_3 = a_1 + (3-1) \frac{1}{3} // a_1 = a_3 - (3-1) \frac{1}{3} =$$

$$= \frac{1}{2} - 2 \cdot \frac{1}{3} = \frac{1}{2} - \frac{2}{3} = \frac{3}{6} - \frac{4}{6} = -\frac{1}{6}$$

$$\underline{\underline{a_1 = -\frac{1}{6}}}$$

$$a_n = -\frac{1}{6} (n-1) \cdot \frac{1}{3}$$

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(95)

	A	B	
Peso	100	x	↑
%	90	75	↓

Inversa

$$100 \cdot 90 = x \cdot 75 // x = \frac{100 \cdot 90}{75} = 120 \text{ gr.}$$

Hay que añadir 20 gr de Cu.

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(78)

$$\text{Comisi3n} = \frac{\text{Ventas} \cdot 0'8}{100} = \text{Ventas} \cdot 0'008$$

$$V = \frac{C}{0'008} = \frac{300}{0'008} = \underline{\underline{37.500 \text{ €}}}$$

$$C = \frac{45.000 \cdot 0'8}{100} = \underline{\underline{360 \text{ €}}}$$

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(83)

Carne : $11'55 - 8'85 = 2'70 \text{ €}$

$$\frac{8'85}{2'70} = \frac{100}{x} \quad // \quad x = \frac{2'70 \cdot 100}{8'85} = \underline{\underline{30'5\%}}$$

Uvas : $3'95 - 2'10 = 1'85$

$$\frac{2'10}{1'85} = \frac{100}{x} \quad // \quad x = \frac{1'85 \cdot 100}{2'10} = \underline{\underline{88'1\%}}$$