

## I PORCENTAJES

01/  $A = \frac{3}{8} (0,2\%) (160.000)$   
 $A = \frac{3}{8} \left( \frac{2}{1000} \right) (160.000)$   
 $A = 120$   
 $B = \frac{5}{6} (0,3\%) (40.000)$   
 $B = \frac{5}{6} \left( \frac{3}{1000} \right) (40.000)$   
 $B = 100$   
 $10\% (A+B) = ?$   
 $\frac{10}{100} (220) = 22$  R

02/  $X\% (0,04) = 0,0028$   
 $\frac{X}{100} \left( \frac{4}{100} \right) = \frac{28}{10000}$   
 $X = 7\%$

## ARITMÉTICA

03/  $\checkmark$  CANTIDAD INICIAL: 100%  
 $\checkmark$  DESCUENTOS SUCEIVOS:  
 $\checkmark$  VOY A PAGAR  
 $(90\%) \cdot (80\%) \cdot (70\%) = \frac{90}{100} \cdot \frac{80}{100} \cdot \frac{70}{100} = \frac{504}{1000} = 50,4\%$   
 $\therefore$  DESCUENTO ÚNICO = ?  
 $100\% - 50,4\% = 49,6\%$  R

04/ 

	% INICIAL	% FINAL
B	100%	-36% → 64%
B <sup>1/2</sup>	100%	-X% → 80%

  
 $B^{\frac{1}{2}} = \sqrt{\frac{64}{100}} = \frac{8 \cdot 10}{10 \cdot 10} = \frac{80}{100}$

## INTENSIVO: REPASO # 02

05/ PIPA 1  
 $\checkmark P_v = 120$   
 $\checkmark F = 20\% X$   
 $\checkmark P_c = X = 100\% X$   
 $P_v = P_c + F$   
 $120 = 100\% X + 20\% X$   
 $120 = 120\% X$   
 $1 = \frac{1}{100} X$   
 $100 = X$   
 $\therefore$  GANÓ: 20

PIPA 2  
 $\checkmark P_v = 120$   
 $\checkmark P = 20\% Y$   
 $\checkmark P_c = Y = 100\% Y$   
 $P_v = P_c - P$   
 $120 = 100\% Y - 20\% Y$   
 $120 = 80\% Y$   
 $120 = \frac{80}{100} Y$   
 $150 = Y$   
 $\therefore$  PÉRDIDO: 30

06/ TOTAL DE LANZAMIENTOS: 160  
 $\checkmark$  YA COMPLETOS: 40  
 $\checkmark$  CUANTAS MÁS: X  
 $\checkmark$  ACERTAR  
 $\therefore 40 + X = 70\% (160)$   
 $40 + X = \frac{70}{100} \cdot 160$   
 $40 + X = 112$   
 $X = 72$

07/ PRIMEROS 10.000  
 $\checkmark$  DESCUENTO: 40% (10.000)  
 $\frac{40}{100} (10.000) = 4000$   
 $\checkmark$  DESCUENTOS SUCEIVOS:  
 $\checkmark$  VOY A PAGAR:  
 $(64\% X 96\%) (10.000)$   
 $\frac{64}{100} \cdot \frac{96}{100} \cdot 10.000 = 6144$   
 $\therefore 4000 - 3856 = 1144$

## II MEZCLA

08/ 80 Lt DE MEZCLA  
 $\checkmark$  + "X"  
 $\therefore (80 + X)$  Lt DE MEZCLA

ANZAMENTOS - 160

40  
S: X

TOTAL:  $40+X$

$40+X = 70\% (160)$

$40+X = 70 \cdot \frac{160}{100}$

$40+X = 112$

$X = 72$

$\frac{10000}{10000} = 100\%$

$36\% = 100\%$

4%  
rescanto:

10000 - 6144

3856

3856 = 144

## II MEZCLAS

081

80 LT DE MEZCLA  
+ "X" LT DE AGUA

ALCOHOL: 60% (80)  
 $\frac{60}{100} (80) = 48$

ALCOHOL = 20% (80+X)  
 $\frac{20}{100} (80+X) = 48$   
 $240 = 80+X$   
 $160 = X$

091

20 LT DE MEZCLA  
- "X" LT DE AGUA

SAL = 15% (20)  
 $\frac{15}{100} (20) = 3$   
= 3 LT de sal

SAL = 20% (20-X)  
 $\frac{20}{100} (20-X) = 3$   
 $15 = 20-X$   
 $X = 5$

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"X" LT DE MEZCLA  
+ 2 LT DE Vinagre

VINAGRE: 20% (X)  
 $\frac{20}{100} (X) = \frac{20X}{100} = \frac{2X}{10} = \frac{X}{5}$

VINAGRE: 40% (X+2)  
 $\frac{40}{100} (X+2) = \frac{40(X+2)}{100} = \frac{4(X+2)}{10} = \frac{2(X+2)}{5}$   
 $5 \cdot \frac{2(X+2)}{5} = \frac{2X}{5}$   
 $10 + X = 2X + 4$   
 $6 = X$

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INCO → TANGRE = 7K  
S = 40% (NS)  
 $\frac{S}{NS} = \frac{40}{100} \Rightarrow \frac{S}{NS} = \frac{2K}{5K}$   
S = 2K  
NS = 5K  
Total = 7K

$S \Rightarrow D = 40\% (ND)$   
 $\frac{D}{ND} = \frac{20}{50}$   
 $\frac{2K}{7} = \frac{20}{50}$   
 $2K = 20$   
 $K = 10$

Quedan = 195 cr.  
 $3K - 2K + 20 = 195$   
 $5K + 20 = 195 \Rightarrow 5K = 175$   
 $K = 35$

$3K - 2K + 20 = 195$   
 $5K + 20 = 195 \Rightarrow 5K = 175$   
 $K = 35$

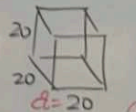
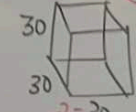
$3K - 2K + 20 = 195$   
 $5K + 20 = 195 \Rightarrow 5K = 175$   
 $K = 35$

$3K - 2K + 20 = 195$   
 $5K + 20 = 195 \Rightarrow 5K = 175$   
 $K = 35$



**\* REGLA DE TRES**

16/ PERSONAS DIAS  
 $20 \rightarrow 30$   
 $18 \rightarrow X$   
 $20(30) = 12(X)$   
 $5 \quad 10 \quad 3$   
 $50 = X$

17/   $a=20$   $(6a^2)$  AREA  $6 \cdot 20^2$  Costo  $712$   
 $6 \cdot 20^2 \times \frac{1}{2}$   
  $a=30$   
 $6 \cdot 30^2 \times \frac{1}{2}$   
 $20^2 \cdot X = 30^2 \cdot 12$   
 $400 \cdot X = 900 \cdot 12$   
 $X = 27$

18/ <sup>CONTRA ELEVANT. EFECTO</sup>  

OBREOS	DIAS	OBRA
6	7	$\frac{2}{7}$
14	Y	$\frac{5}{Y}$

CONCLUIR LA OBRA.  
 $6 \cdot 7 \cdot \frac{5}{Y} = 14 \cdot X \cdot \frac{2}{7}$   
 $15 = X$

19/ HOMBRES DIAS  
 $N \rightarrow 2$   
 $(N-X) \rightarrow 32$   
 $N \cdot 2 = (N-X) \cdot 32$   
 $N = 3N - 32X$   
 $3X = 2N$   
 $X = \frac{2N}{3}$

20/ PERSONA Rapidez  
 Juan  $\rightarrow 3(42) = 122$   
 Carlos  $\rightarrow 4(2) = 42$   
 Luis  $\rightarrow (2)$

Rapidez tiempo  
 Juan  $\rightarrow 42 \rightarrow 90 \text{ min}$   
 Luis y Carlos juntos  $\rightarrow 52 \rightarrow X$   
 $\frac{1}{2} + \frac{1}{4} = \frac{1}{X}$   
 $\frac{2}{4} + \frac{1}{4} = \frac{1}{X}$   
 $\frac{3}{4} = \frac{1}{X}$   
 $X = \frac{4}{3}$   
 $\frac{18}{5} = X \Rightarrow 36h = X$

21/ OBREOS-DIAS OBRA  
 $(18)(8)$   
 $(18+X)3 + (18+2X)2 + (18+3X)1$   
 $(108+10X)$   
 $18(8) \left( \frac{2}{3} \right) = (108+10X) \left( \frac{1}{3} \right)$  Terminar la obra.  
 $288 = 108 + 10X$   
 $180 = 10X$   
 $18 = X$   

	1º dia	2º dia	3º dia
1º dia: $(18+X)$	✓	✓	✓
2º dia: $(18+2X)$	X	✓	✓
3º dia: $(18+3X)$	X	X	✓

Rapidez

$$3(42) = 122$$

$$4(2) = 42$$

(2)

tiempo

$$\rightarrow 90 \text{ min}$$

$$\rightarrow X$$

$$7 = 52(X)$$

$$1h = X$$

$$60 \text{ min}$$

$$3/6 h = X$$

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OBREROS-DIAS

OBRAS

$$(18)(8) + (18+X)3 + (18+2X)2 + (18+3X)1 = (108+10X)$$

$$18(8) \left( \frac{2}{3} \right) = (108+10X) \left( \frac{1}{3} \right) \text{ Terminar la obra.}$$

$$288 = 108 + 10X$$

$$180 = 10X$$

$$18 = X$$

1º dia 2º dia 3º dia

$$1^\circ \text{ dia: } (18+X) \rightarrow \checkmark$$

$$2^\circ \text{ dia: } (18+2X) \rightarrow X$$

$$3^\circ \text{ dia: } (18+3X) \rightarrow X$$

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(TIEMPO). (PESO)  
(Distancia)<sup>3</sup>

Tierra

$$T: 365$$

$$P: 2$$

$$D: b$$

Otro planeta

$$T: X$$

$$P: 22$$

$$D: 2b$$

$$\frac{365 \cdot 2}{b^3} = \frac{X \cdot 22}{(2b)^3}$$

$$\frac{365}{b^3} = \frac{2X}{48b^3}$$

$$1460 = X$$

Precio, Distancia, Area.

$$P = 45000$$

$$D = 75$$

$$A = K$$

$$45000 \cdot 75 = K$$

$$P: X$$

$$D: 150$$

$$A = 2K$$

$$X \cdot 150 \cdot 75 = 2K$$

$$45000 = X$$

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X LT de Mezcla

(X+2) LT de Mezcla