INTENSIVO: REPASO # 01

ARITMÉTICA

01

4, A, 6, B, 9, D, 13, F, 18, K, 24, O, ?

+2 +3 +4 +5 +6

+1 +1 +1 +1

0 1 2 3 C EF HIJ LMNÑ

02

1, 1, 1, -2, 2, -5, X=6, Y=-8

-3 -3 -3

x1 x2 x3

$\therefore \frac{2X-Y}{5} = ? = \frac{2(6)-(-8)}{5} = \frac{12+8}{5} = \frac{20}{5} = 4$

03

P.5. $\Rightarrow$ t_1 t_2 t_3 t_4 ... a ; ar^1 ; ar^2 ; ar^3 ; .....

$\times r$ $\times r$ $\times r$

$t_{13} = 512$

$ar^{12} = 512$

$ar^7 \cdot r^5 = 512$

$16 r^5 = 512$

$r^5 = 32$

$r^5 = 2^5$

$r = 2$

$r + t_1 = ?$

$2 + 0,125$

2,125 Rpta

$t_8 = 16$

$ar^7 = 16$

$a \cdot 2^7 = 2^4$

$a \cdot 2^4 \cdot 2^3 = 2^4$ 1

$a \cdot 8 = 1$

$a = \frac{1}{8}$

$a = 0,125$

04

19 +9 $\rightarrow$ X=28 +9 $\rightarrow$ 37 +10 $\rightarrow$ Y 47 56 65 +10 $\rightarrow$ 75 +9 $\rightarrow$ 84=Z +9 $\rightarrow$ 93

+9 +9

$\therefore X + Z = ?$

$28 + 84 = 112$ Rpta

08|

$S_1 = 1+3+5+\dots+19 = \left(\frac{19+1}{2}\right)^2 = (10)^2 = 100$

CONSECUTIVOS IMPARES

$S_2 = 1+4+9+\dots+100$

$S_2 = 1^2+2^2+3^2+\dots+(10)^2 = \frac{10(11)(10+11)}{6} = 385$

consecutivos elevados al cuadrado

$S_3 = 0,1+0,2+0,3+\dots+8$

$S_3 = \frac{1}{10}+\frac{2}{10}+\frac{3}{10}+\dots+\frac{80}{10}$

$S_3 = \frac{1+2+3+\dots+80}{10} = \frac{\frac{80(81)}{2}}{10} = 324$

consecutivos

- $S_1+S_2+S_3 = ?$

$100+385+324 = 809$

09|

- $1+2+3+\dots+x = 91$

$\frac{x(x+1)}{2} = 91$

$x(x+1) = 182$

$x(x+1) = 13(13+1)$

$x = 13$

- $1+3+5+7+\dots+y = 289$

$\left(\frac{y+1}{2}\right)^2 = 17^2$

$y+1 = 34 \Rightarrow y = 33$

- $3x-y = ?$

$3(13)-33 = 39-33 = 6$

10|

$S = 1+4+7+10+\dots+58$

$t_1 = 1$, $r = 3$, $t_n = 58$

$S = \left(\frac{1+58}{2}\right)(20) = 590$

SUMA DE UNA P.A.

$S = \left(\frac{t_1+t_n}{2}\right)n$

Ojo: $t_n = t_1+(n-1)r$

$58 = 1+(n-1)3$

$57 = (n-1)3$

$19 = n-1$

$20 = n$

NÚMEROS RACIONALES (FRACCIONES)

15| $(X)\left(\frac{1}{45}\right) = \frac{2}{3} - \frac{5}{9}$

$\frac{X}{45} = \frac{6-5}{9}$

$\frac{X}{45} = \frac{1}{9}$

$X = 5$

16| $\frac{5}{8} + X = \frac{2}{3}\left(\frac{7}{4}\right)$

$\frac{5}{8} + X = \frac{7}{6}$

$X = \frac{7}{6} - \frac{5}{8}$

$X = \frac{28-15}{24}$

$X = \frac{13}{24}$

17| $X + 9 = \frac{X}{\frac{4}{7}}$

$X + 9 = \frac{7X}{4}$

$4X + 36 = 7X$

$36 = 3X$

$12 = X$

18| Recorrido Total

Ya avanzo: $\frac{1}{5}$ — Lo que falta: $\frac{4}{5}$

$X\left(\frac{4}{5}\right)$

$\frac{8}{15} = \frac{1}{5} + 4X$

$\frac{8}{3} = 1 + 4X$

$8 = 3 + 12X$

$5 = 12X$

$\frac{5}{12} = X$

19| FRACCIONES: $\frac{\overline{ab}}{\overline{ba}} = \frac{68}{119}$

$\frac{\overline{ab}}{\overline{ba}} = \frac{4K}{7K}$

$K = 3; 6; 9; 12$

4#s

12, 24, 36, 48

21, 42, 63, 84

$\overline{ab} = 4K$

$9 < \overline{ab} < 100$

$9 < 4K < 100$

$2,\ldots < K < 25$

$K = 3, 6, 9, 12, 15, 24$

08| $S_1 = 1 + \ldots$

$S_2 = 1 + \ldots$

$S_2 = 1^2 + \ldots$

$S_3 = \ldots$

$S_3 = \ldots$

$S_3 = \ldots$

$S_1 \ldots$

100+

RAZONES Y PROPORCIONES

27)

$$\therefore \frac{(A)}{(B)} = \frac{(C)}{(X)}$$

$$\frac{12}{18} = \frac{6}{x} \Rightarrow x = 9$$

✓ $(14) - (13) = (13) - (A)$

$1 = 13 - A$

$A = 12$

✓ $\frac{(2)}{(6)} = \frac{(6)}{(B)}$

$B = 18$

✓ $(2) - (5) = (-1) - (C)$

$-3 = 3 - C$

$C = 6$

29) $U + N + \ldots + 5 = ?$

$12 + 33 + 36 + 125 + 4$

210

✓ $20 - 16 = 16 - U$

$4 = 16 - U$

$U = 12$

✓ $27 - N = N - 39$

$66 = 2N$

$33 = N$

✓ $\frac{72}{P} = \frac{P}{18}$

$1296 = P^2$

$\sqrt{1296} = P$

$36 = P$

✓ $\frac{42}{12} = \frac{14}{5}$

$5 = 4$

✓ $\frac{5}{25} = \frac{25}{R}$

$R = 125$

28)

Razón geométrica $\Rightarrow \frac{a}{b} = 0{,}75$

$\frac{a}{b} = \frac{3K}{4K}$

$\therefore a + b = 1141$

$3K + 4K = 1141$

$7K = 1141$

$K = 163$

$\therefore b - a = ?$

$4K - 3K$

$K = ?$

$K = 163$

30)

∴ Aviones: $(A) = 6 +$

∴ Barcos: $(B) = 10$

16

✓ Piloto:

Aviones: $\frac{(A-1)}{B} = \frac{1}{2}$

Barcos: $2A - 2 = B$

✓ Maringro $2(6) - 2 = B \Rightarrow B = 10$

Barcos: $\frac{(B-1)}{A} = \frac{3}{2}$

Aviones: A

$2B - 2 = 3A$

$2B = 3A + 2$

$2(2A-2) = 3A + 2$

$4A - 4 = 3A + 2$

$A = 6$