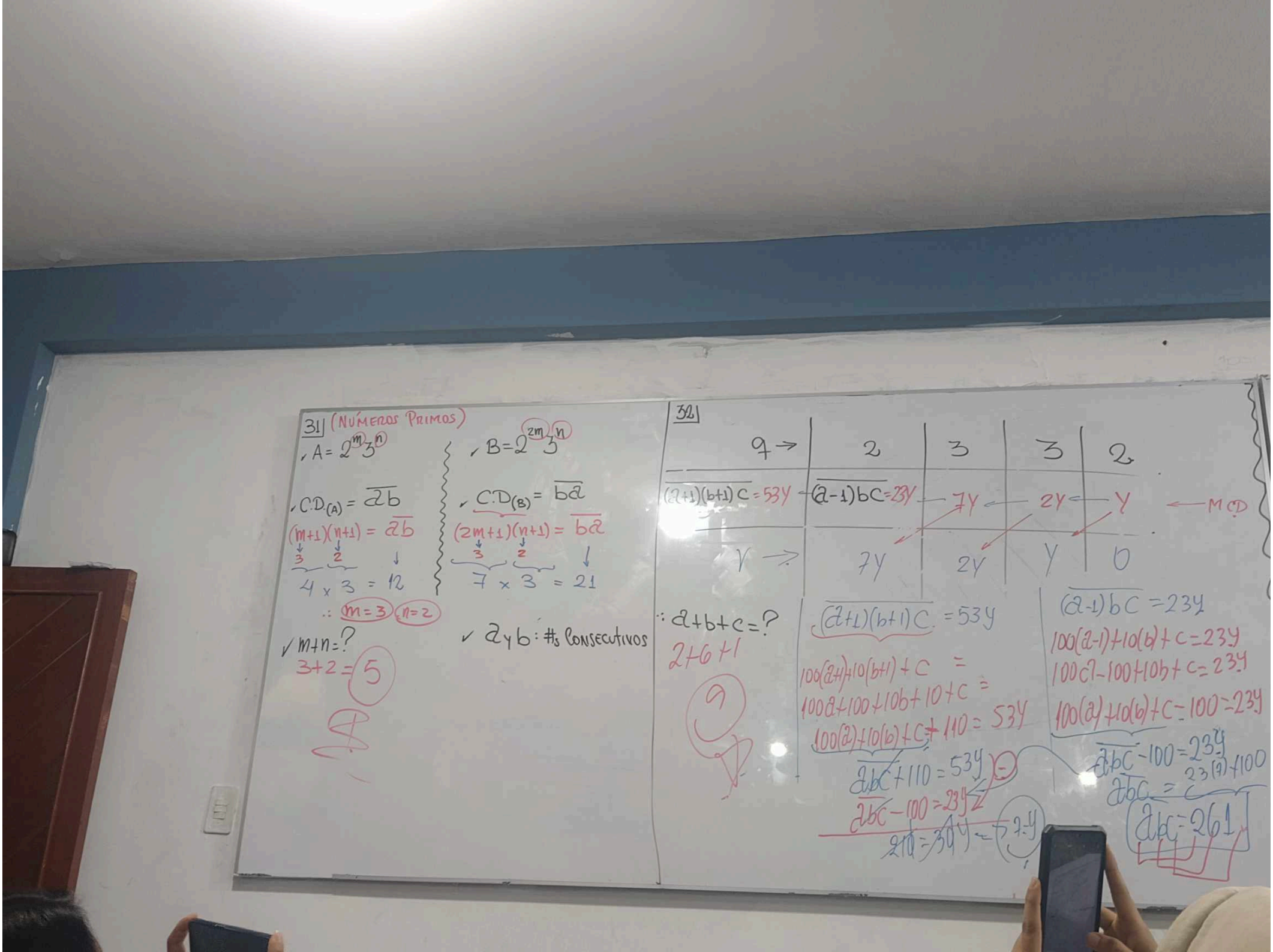

31 (NÚMEROS PRIMOS)
A = 2^m 3^n
C.D(A) = ab
(m+1)(n+1) = ab
4 x 3 = 12
∴ m = 3, n = 2
m+n = ?
3+2 = 5
B = 2^2m 3^n
C.D(B) = ba
(2m+1)(n+1) = ba
7 x 3 = 21
a y b : #s Consecutivos
32
9 → 2 3 3 2
(a+1)(b+1)c = 53y
(a-1)bc = 23y
7y
2y
y
MCD
7y 2y y b
∴ a+b+c = ?
2+6+1
9
(a+1)(b+1)c = 53y
100(a+1)+10(b+1)+c =
100a+100+10b+10+c =
100(a)+10(b)+c+110 = 53y
abc+110 = 53y
abc-100 = 23y
210 = 30y → 7y
(a-1)bc = 23y
100(a-1)+10(b)+c = 23y
100a-100+10b+c = 23y
100(a)+10(b)+c-100 = 23y
abc-100 = 23y
23(7)+100
abc = 261

31 (NÚMEROS PRIMOS)

$A = 2^m 3^n$

$C.D_{(A)} = \overline{ab}$

$(m+1)(n+1) = \overline{ab}$

$4 \times 3 = 12$

$\therefore m = 3 \quad n = 2$

$m+n = ?$

$3+2 = 5$

$B = 2^{2m} 3^n$

$C.D_{(B)} = \overline{ba}$

$(2m+1)(n+1) = \overline{ba}$

$7 \times 3 = 21$

a y b : #s CONSECUTIVOS

32

9 →	2	3	3	2
$\overline{(a+1)(b+1)c} = 53y$	$\overline{(a-1)bc} = 23y$	$7y$	$2y$	y ← MCD
y →	$7y$	$2y$	y	0

$\therefore a+b+c = ?$

$2+6+1$

9

$\overline{(a+1)(b+1)c} = 53y$

$100(a+1)+10(b+1)+c =$

$100a+100+10b+10+c =$

$100(a)+10(b)+c+110 = 53y$

$\overline{abc}+110 = 53y$

$\overline{abc}-100 = 23y$

$210 = 30y \Rightarrow y = 7$

$\overline{(a-1)bc} = 23y$

$100(a-1)+10(b)+c = 23y$

$100a-100+10b+c = 23y$

$100(a)+10(b)+c-100 = 23y$

$\overline{abc}-100 = 23y$

$\overline{abc} = 23(9)+100$

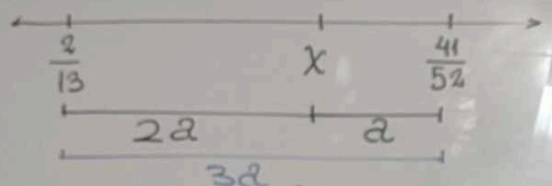
$\overline{abc} = 261$

33 (S

N = 0

0

35



$\therefore X = ?$ $\quad \because \frac{41}{52} - \frac{21}{52} = 3a.$

$X + a = \frac{41}{52}$

$X + \frac{11}{52} = \frac{41}{52}$

$X = \frac{30}{52} = \frac{15}{26}$ (Rpta)

$\frac{33}{52} = 3a$

$\frac{11}{52} = a$

36 INICIO

$P_v = X = 100\%X$

$P_c = Y = 100\%Y$

$G = 20\%(Y) + 25\%(X)$

$= \frac{20}{100}(5k) + \frac{25}{100}(8k)$

$= k + 2k$

$G = 3k$

FINAL

$P_v = X + 15\%X$

$G = 25200$

$3k + \frac{6k}{5} = 25200$

$\frac{21k}{5} = 25200$

$K = 6000$

$P_v = P_c + G$

$100\%X = 100\%Y + 20\%Y + 25\%X$

$5X = 8Y$

$\frac{X}{Y} = \frac{8k}{5k}$

$X = 8k$

$Y = 5k$

$\therefore 15\%X = ?$

$\frac{15}{100}(8k)$

$\frac{6k}{5} = ?$

$\frac{6(6000)}{5} = \frac{36000}{5}$

$= 7200$

33| (SUMATORIAS)

$$N = \frac{0,\hat{1} + 0,\hat{2} + 0,\hat{3} + \dots + 0,\hat{8}}{0,2\hat{1} + 0,3\hat{2} + 0,4\hat{3} + \dots + 0,9\hat{8}} = \frac{4}{\frac{24}{5}} = \frac{5}{6}$$

✓ $0,\hat{1} + 0,\hat{2} + 0,\hat{3} + \dots + 0,\hat{8}$

$$\frac{1}{9} + \frac{2}{9} + \frac{3}{9} + \dots + \frac{8}{9} = \frac{\frac{8 \cdot 9}{2}}{9} = 4$$

✓ $0,2\hat{1} + 0,3\hat{2} + 0,4\hat{3} + \dots + 0,9\hat{8}$

$$\frac{21-2}{90} + \frac{32-3}{90} + \frac{43-4}{90} + \dots + \frac{98-9}{90}$$

$$\frac{19 + 29 + 39 + \dots + 89}{90} = \frac{\frac{(19+89)\,8}{2}}{90} = \frac{(108)(4)}{90} = \frac{24}{5}$$

34| (RAZONES Y PROPORCIONES)

✓ 3 VECINOS: V_1; V_2; V_3

✓ $V_1 + V_2 + V_3 = 1369$

$6K + 21K + 10K = 1369$

$37K = 1369$

$K = 37$

✓ $V_1 = \frac{3}{5}(V_3)$

$\frac{V_1}{V_3} = \frac{3(2K)}{5(2K)}$ → $V_1 = 6K$, $V_3 = 10K$

✓ $V_2 = \frac{7}{2}(V_1)$

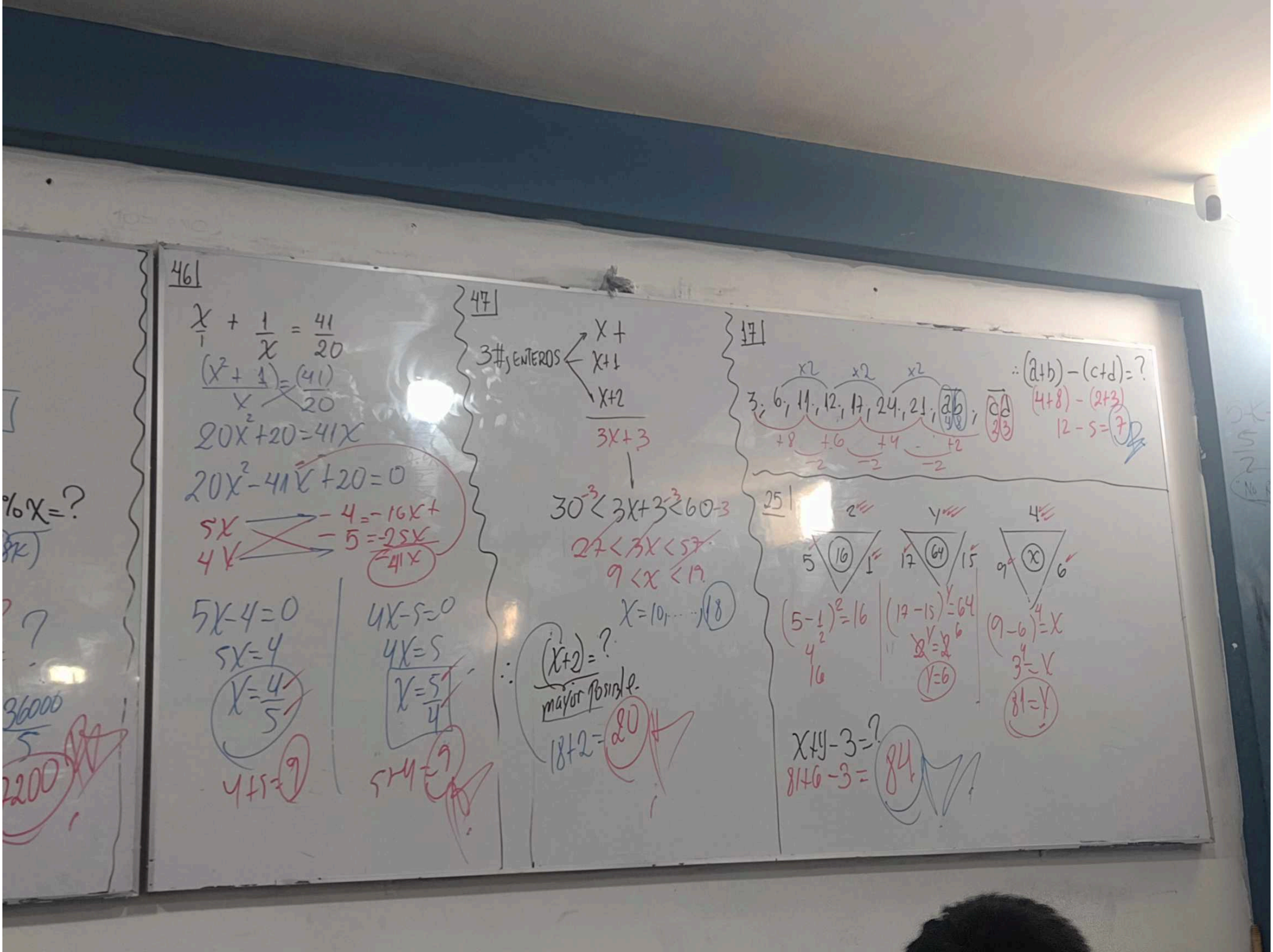
$V_2 = \frac{7}{2}(6K)$

$V_2 = 21K$

✓ $V_1 = ? = 6K = 6(37) = 222$

✓ $V_3 = ? = 10K = 10(37) = 370$

Rptas


46|
$\frac{x}{1} + \frac{1}{x} = \frac{41}{20}$
$\frac{(x^2+1)}{x} = \frac{(41)}{20}$
$20x^2+20=41x$
$20x^2-41x+20=0$
$5x \quad -4 = -16x$
$4x \quad -5 = -25x$
$-41x$
$5x-4=0$
$5x=4$
$x=\frac{4}{5}$
$4+5=9$
$4x-5=0$
$4x=5$
$x=\frac{5}{4}$
$5+4=9$
47|
3 #s ENTEROS
$x+$
$x+1$
$x+2$
$3x+3$
$30-3 < 3x+3-3 < 60-3$
$27 < 3x < 57$
$9 < x < 19$
$x = 10, \ldots 18$
$\therefore (x+2) = ?$
mayor posible
$18+2=20$
17|
3; 6; 11; 12; 17; 24; 21; ab; cd
x2 x2 x2
+8 +6 +4 +2
-2 -2 -2
ab = 23
$\therefore (a+b)-(c+d)=?$
$(4+8)-(2+3)$
$12-5=7$
25|
2 Y 4
5 16 1
17 64 15
9 x 6
$(5-\frac{1}{2})^2=16$
$4^2=16$
$(17-15)^Y=64$
$2^Y=2^6$
$Y=6$
$(9-6)^4=x$
$3^4=x$
$81=x$
$x+y-3=?$
$81+6-3=84$