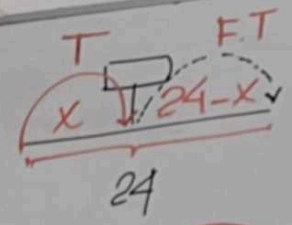


(01) $2x = 4(24-x)$

$2x = 96 - 4x$

$6x = 96$

$x = 16_H = 4pm$

DENTRO 4

∴ 8pm

(02) $24 - x - x = 5$

$19 = 2x$

$\frac{19}{2} = x$

DENTRO $5\frac{1}{4} = \frac{21}{4}$

$\frac{19}{2} + \frac{21}{4} = \frac{38+21}{4}$

59 | 4

3 (14) 15

$14\frac{3}{4} \times 60$

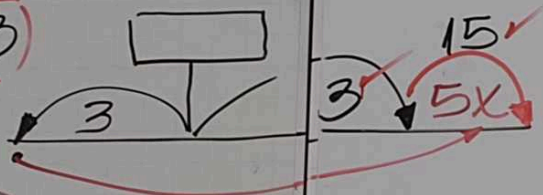
14 : 45 min

∴ 2 : 45 pm

SBS
TOSCANO

14
14 15
3 × 60
45 min
45 pm

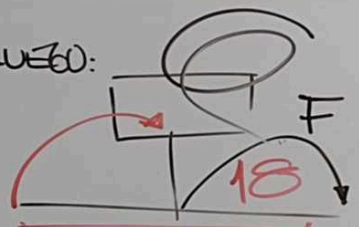
03



5x
7x

$7X = 6 + 5X$
$2X = 6$
$X = 3$

Luego:



24
∴ Sara

04

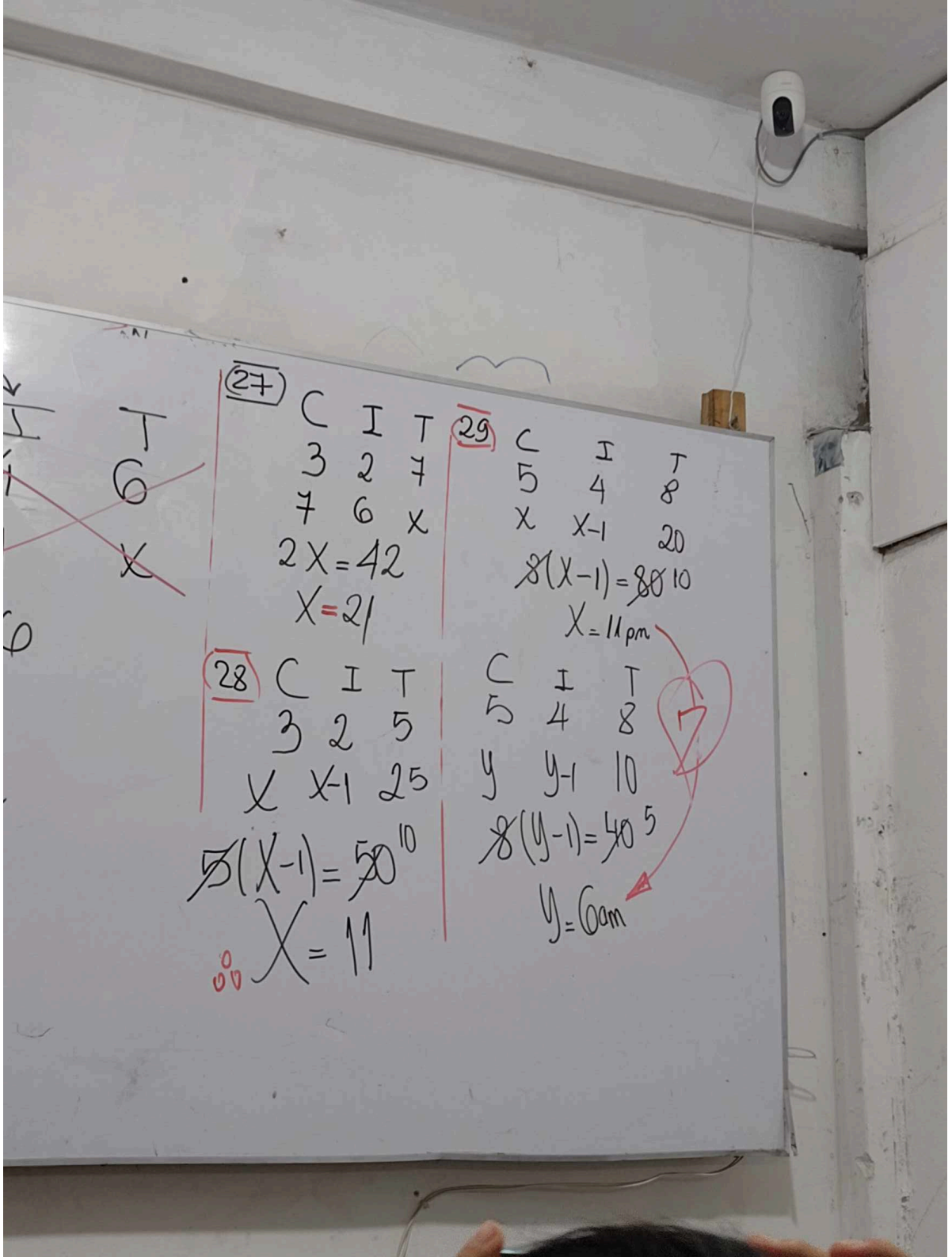
C	J	T
5	4	6
12	11	x

(−1)

$4X = 66$
$X = \frac{33}{2}$

27

28


T
6
x
6
(27)
C I T
3 2 7
7 6 x
2x = 42
x = 21
(28)
C I T
3 2 5
x x-1 25
5(x-1) = 50
10
x = 11
(29)
C I T
5 4 8
x x-1 20
8(x-1) = 80
10
x = 11pm
C I T
5 4 8
y y-1 10
8(y-1) = 40
5
y = 6am

$C = \frac{T}{I \times C} + 1$

30) $10n = \frac{21}{n} + 1$

$10n^2 = 21 + n$

$10n^2 - n - 21 = 0$

$2n \quad -3$

$5n \quad +7$

$(2n-3)(5n+7) = 0$

$2n - 3 = 0$

$n = \frac{3}{2}$

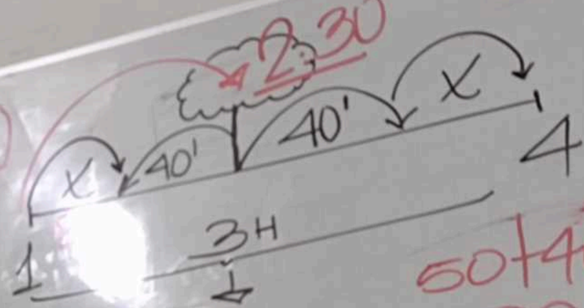
$C = 10\left(\frac{3}{2}\right) \rightarrow C = 15$

C	I	T
15	14	21
7	6	X

$14X = 6(21)$

$\therefore X = 9$

24)



$2X + 80 = 180$

$2X = 100$

$X = 50$

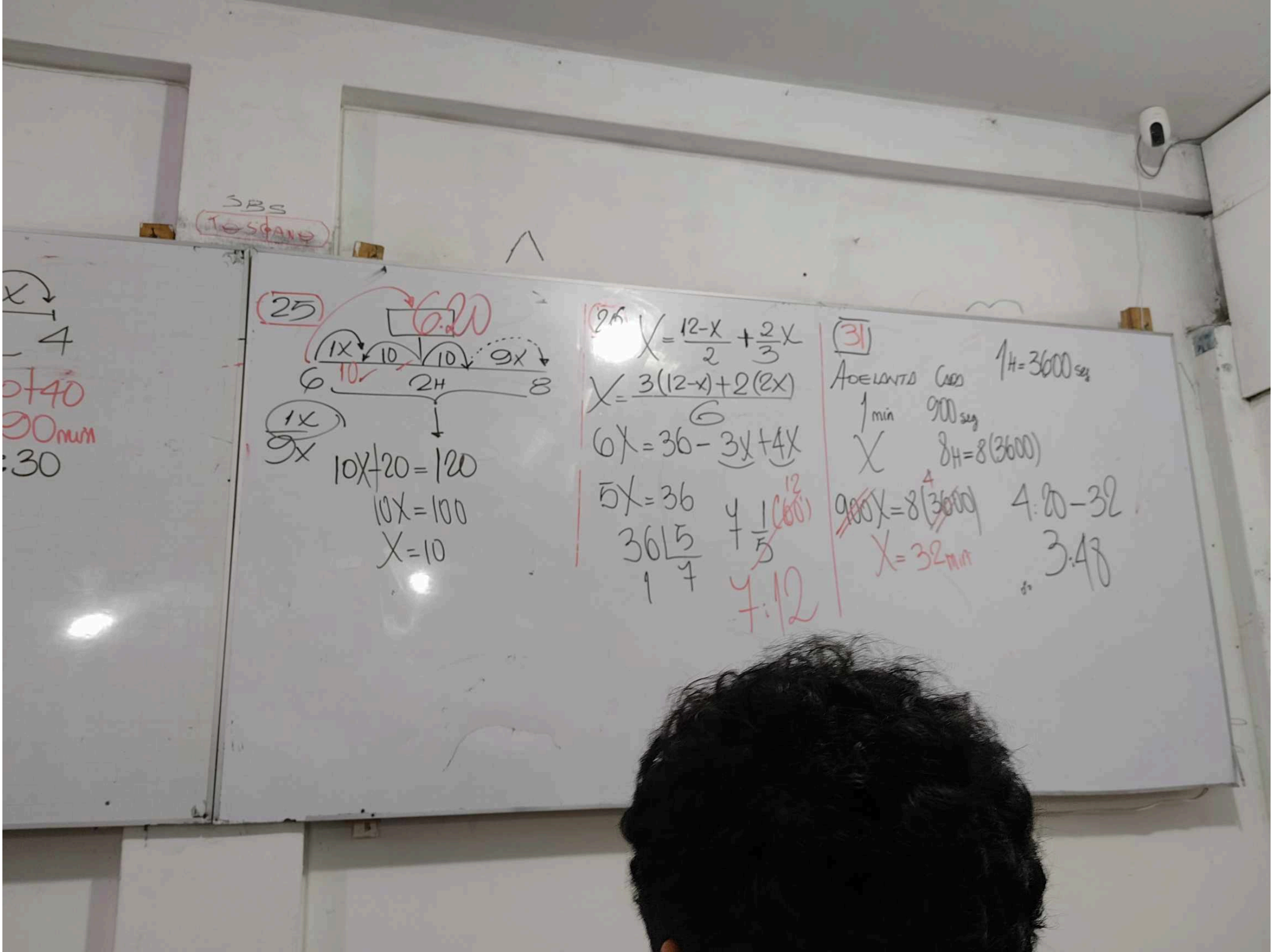
$50 + 40$

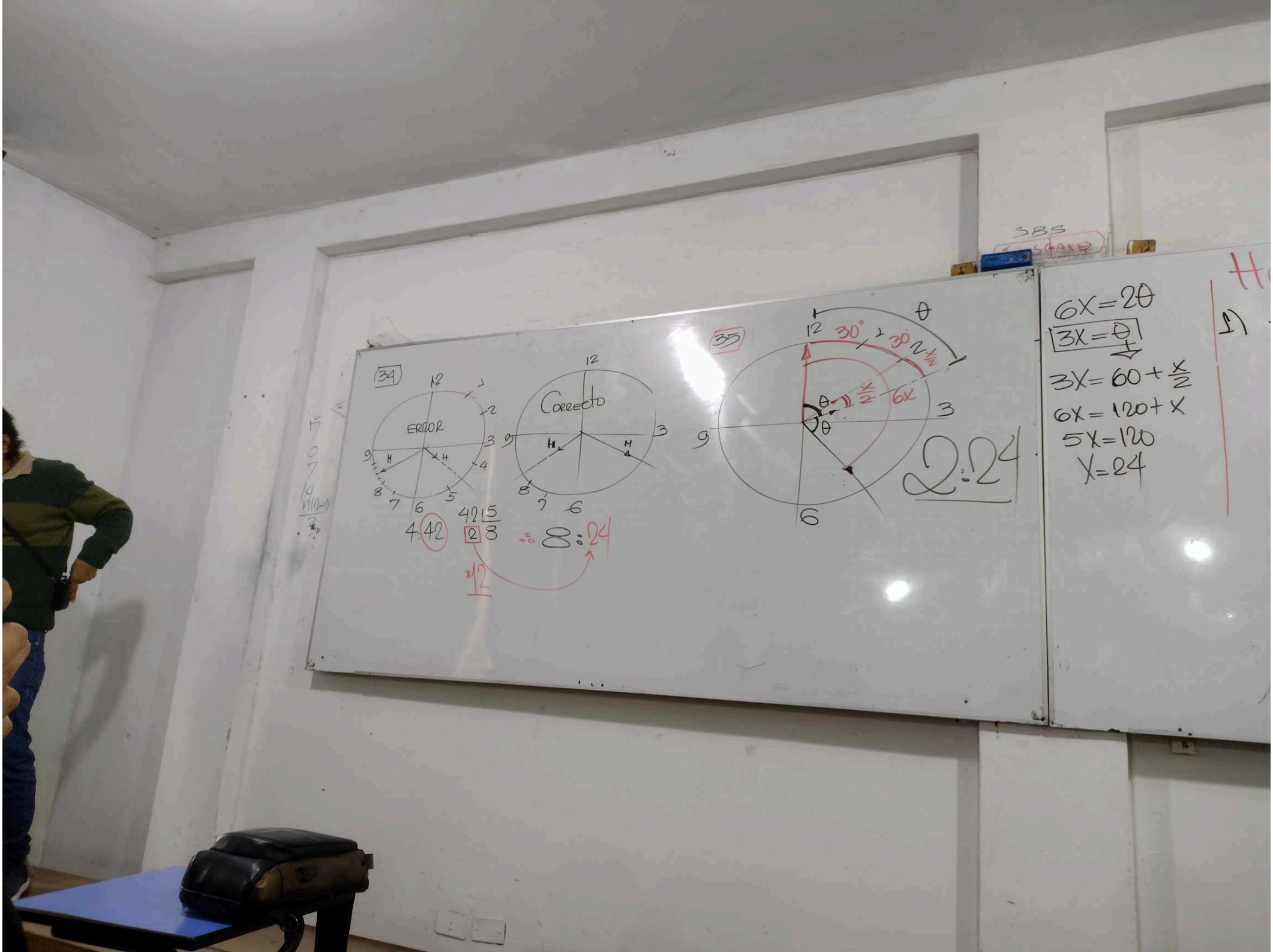
90 min

1:30

$2:30$ ($\times 30 \rightarrow 60$, $\times \frac{11}{2} \rightarrow 165$)

$\therefore \alpha = 105^\circ$


SBS
TESTANO
25
6.20
1X
10
10
9X
6
10
2H
8
1X
9X
10X+20=120
10X=100
X=10
$X=\frac{12-X}{2}+\frac{2}{3}X$
$X=\frac{3(12-x)+2(2X)}{6}$
$6X=36-3X+4X$
$5X=36$
36|5
1 7
4 1/5 (60')
4:12
31
ADELANTO CADA
1 min 900 seg
X
1H=3600 seg
8H=8(3600)
$900X=8(3600)$
$X=32_{min}$
4:20-32
3:48


34
ERROR
4:42
4215
2 8
÷ 8:24
x12
Correcto
35
θ
30°
30°
x/2
6x
2:24
6X=2θ
3X=θ
3X=60+x/2
6X=120+X
5X=120
X=24

HABILIDAD OPE

1) $\sqrt{1\times2\times3\times4+1}$

$\sqrt{25}=5$ ✓

$\sqrt{2\times3\times4\times5+1}$

$\sqrt{121}=11$ ✓

$\sqrt{3\times4\times5\times6+1}$

$\sqrt{361}=19$ ✓

GENERAL

$\sqrt{a(a+1)(a+2)(a+3)+1}$

Rpt: $a(a+3)+1$

(37) $\sqrt{\overline{a5}\times\overline{a6}\times\overline{a7}\times\overline{a8}+1}=2161$

$\overline{a5}\times\overline{a8}+1=2161$

$\overline{a5}\times\overline{a8}=2160$

$45\times48=2160$ ✓

$\boxed{a=4}$

PIDEN:

$a+\overline{aa}+\overline{aaa}+\ldots$

(a sumandos)

$4+44+444+4444$

$$\begin{array}{r} 4 \\ 44 \\ 444 \\ +\ 4444 \\ \hline 4930 \end{array}$$

SBS
TOSCANO

36 $A = \underbrace{111\ldots1}_{1997\ cf} \times \underbrace{1000\ldots1}_{1998\ cf}$

INDUCCIÓN — SC

$11 \times 101 = 1111 \rightarrow 4 = 2(2)$

$111 \times 1001 = 111111 \rightarrow 6 = 2(3)$

$1111 \times 10001 = 11111111 \rightarrow 8 = 2(4)$

$SC = 2(1997)$

$\therefore 3994$

RECUERDA:

$(45)^2 = 2025$ ($\times 5$)

$(85)^2 = 7225$ ($\times 9$)

$(125)^2 = 15625$ ($\times 13$)

35 $95^2 + 995^2 + 9995^2 + \ldots$

PAR → $(27+7)$ TÉRMINOS

$(\ldots 25) + (\ldots 25) + (\ldots 25) + \ldots$

IMPAR

$[(\ldots 25)]^4 = \left(\sqrt[4]{\ldots cb}\right)^4$

$(\ldots 25) = \overline{\ldots cb}$

$(b+c)^2 = (2+5)^2 = 49$

$= \sqrt[4]{\ldots}$

$= \sqrt[4]{\ldots}$

4

SBS
TOSCANO

$995^2 + 9995^2 + \ldots$

(7+7) TÉRMINOS

$(\ldots 25) + (\ldots 25) + \ldots$

IMPAR

$\ldots 25)^4 = (\sqrt[4]{\ldots Cb})^4$

$\ldots 25) = \overline{\ldots Cb}$

$(\ldots C)^2 = (2+5)^2 = 49$

$= \sqrt[4]{\ldots Cb}$

$= \sqrt[4]{\ldots Cb}$

4

34 $1! + 2! + 3! + 4! + 5! + \ldots + 100!$

$1! = 1 +$

$2! = 2$

$3! = 6$

$4! = 24$

$5! = 120$

$6! = 720$

$\vdots$

$100! = \ldots 0$

$\ldots 3$

$x^3+y^3=(x+y)(x^2-xy+y^2)$

33 $A^2=(a+\frac{1}{a})^2$ $a^2+\frac{1}{a^2}=7$

$A^2=a^2+2\cdot a\cdot\frac{1}{a}+\frac{1}{a^2}$

$A^2=9$

$A=3 \rightarrow a+\frac{1}{a}=3$

PIDEN: $a^3+\frac{1}{a^3}=(a+\frac{1}{a})(a^2-a\cdot\frac{1}{a}+\frac{1}{a^2})$

$3(6)$

18