

$$\frac{t}{3} - t + 7 \leq -\frac{4t}{3} + 8 \quad / \cdot 3$$

4:12 - 4:15

examen rápido

$$t - 3t + 21 \leq -4t + 24$$

$$-2t + 21 \leq -4t + 24 \quad / +4t - 21$$

$$-2t + \cancel{21} + 4t - \cancel{21} \leq -\cancel{4t} + 24 + \cancel{4t} - 21$$

$$2t \leq 3 \quad / \div 2$$

$$t \leq \frac{3}{2}$$



$$-3x > 2 \quad / \div (-3)$$

$$\frac{-3x}{-3} < \frac{2}{-3} = -\frac{2}{3}$$

$$x < -\frac{2}{3}$$

$$-3x > 2 \quad / \cdot \left(-\frac{1}{3}\right)$$

$$\left(-\frac{1}{3}\right) \cdot (-3x) < \left(-\frac{1}{3}\right) \cdot 2 = -\frac{2}{3}$$

$$x < -\frac{2}{3}$$

voltear!

porque?

$$x+2 \leq 7 \quad / -2$$

$$x+2-2 \leq 7-2$$

$$x \leq 5$$

$$x+2 \leq 7 \quad / +(-2)$$

$$x+2+(-2) \leq 7+(-2)$$

$$\boxed{x \leq 5}$$

62. Determine la suma de los números entre 50 y 150, inclusive.

63. Determine cuántos números entre 7 y 1610 son divisibles entre 6.

$$50 + 51 + \dots + 149 + 150 =$$

$$a_n = a_1 + (n-1)d$$

$$S_n = \frac{(a_1 + a_n) \cdot n}{2}$$

$$a_1 = 50$$

$$a_n = 150$$

n = ?

$$50 + 51 + 52 + 53 + 54 + 55$$

6 elementos

$$150 = 50 + (n-1)d$$

$$100 = n-1$$

$$101 = n$$

$$S_{101} = \frac{50 + 150}{2} \cdot 101 =$$

$$= 100 \cdot 101 = 10100$$

entre 3

~~3, 6, 9, ...~~

12, 18, 24, ..., 1608

$$3, 6, 9, \dots$$

$$268$$

$$6 \overline{) 1610}$$

$$\underline{12}$$

$$41$$

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

$$n = 3m$$

$$1610 = 268 \cdot 6 + 2$$

(2)

63) ¿Cuál la suma $12 + 18 + 24 + \dots + 1608$?

$$\begin{cases} a_n = a_1 + (n-1)d \\ S_n = \frac{a_1 + a_n}{2} \cdot n \end{cases}$$

$6, 12, 18 \rightarrow \frac{18}{6} = 3$ términos

$6 \cdot 1, 6 \cdot 2, 6 \cdot 3 \dots$

$6, 12, 18, \dots, 1608$
 " " " " " " " " " " " "

$6 \cdot 1 \quad 6 \cdot 2 \quad 6 \cdot 3 \quad \dots \quad 6 \cdot 268$
 $\underbrace{\hspace{15em}}_{268 \text{ términos}} \Rightarrow$

$\Rightarrow 12, 18, \dots, 1608$
 hay $n = 267$ términos.

$a_n \neq a_n$

$$\begin{array}{r} 268 \\ 6 \overline{) 1608} \\ \underline{12} \\ 40 \\ \underline{36} \\ 40 \end{array}$$

$5:32 - 5:55$

Problem 176. Find the 1000th term of the progression

1, 3, 5, 7, ...

1 minuto!

• es una prog. aritmetica

$$a_n = a_1 + (n-1)d$$

$$n=1000, a_1=1, d=2$$

$$a_{1000} = 1 + (1000-1)2 = 1 + 2000 - 2 = 2000 - 1 = \underline{\underline{1999}}$$

$$a_1 = 7, \quad a_{10} = 70 = 7 + (9) \cdot d \quad | \Rightarrow d$$

$$a_5 = ? = 7 + (5-1)d$$

Atrajo!

$$70 = 7 + 9 \cdot d \quad | \cdot 4$$

$$a_5 = 7 + 4 \cdot d \quad | \cdot 9$$

$$\left[\begin{array}{l} 280 = 28 + 36d \\ 9a_5 = 63 + 36d \end{array} \right.$$

$$\underline{9a_5 = 63 + 36d}$$

$$9a_5 - 280 = 63 - 28 = 25 \quad | + 280$$

$$9a_5 = 25 + 280 = 305 \quad | \div 9$$

$$a_5 = 305 / 9$$