

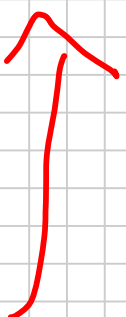
$$\frac{21n+2}{28n+3} \text{ è irriducibile?}$$

$$\frac{28n+3 - 7n+1}{28n+3} = 1 -$$

$$\frac{21n+2}{28n+3}$$



$$\frac{7n+1}{4(7n+1)-1}$$



Se $a+4b$ è mult. di 13, lo è anche

$$10a+b?$$

$$a + 4b = 13n$$

$$10a + 4b = 130n$$

$$10a + b = 130n - 39b = 13(10n - 3b)$$

$$13 \mid a$$

you divide the a by mult. of 13

n è mult. di 3 $\Leftrightarrow$ somma delle cifre $\dots 3$

// $9 \Leftrightarrow$ //

9

27

?

27

27 somma 9!

~~27~~

$$999 = 9 \cdot 111$$

$$9981 = 9 \cdot (1109)_{10}$$

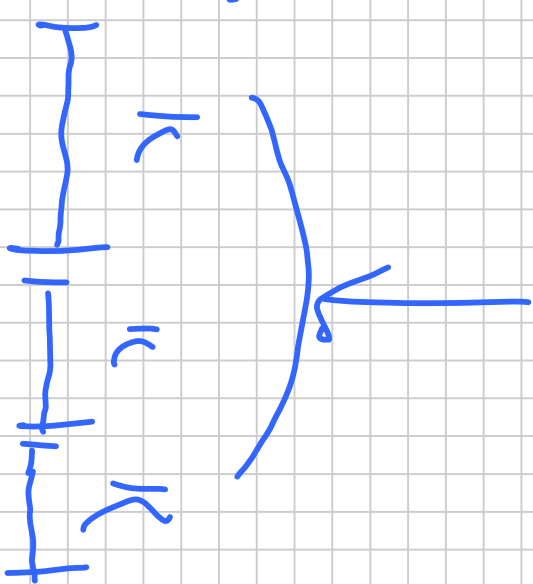
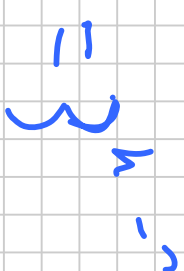
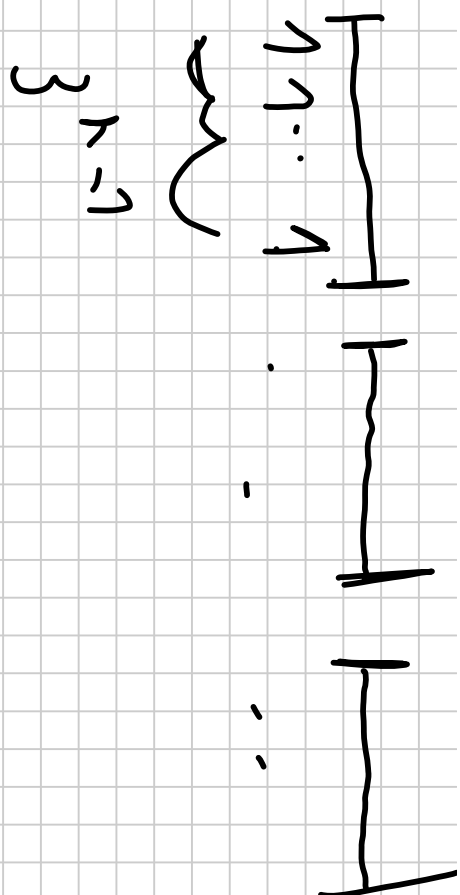
~~11~~

~ . ~ . ~

111...1 and in 10^3

~

3



CONGRUENZE

$$(n-1)^2 + n^2 + (n+1)^2 = n^2$$

MAI!

$$3n^2 + 2$$

$$31n \rightarrow NO$$

$$n = 3a + 1 \rightarrow NO$$

$$n = 3a + 2 \rightarrow NO$$

$$m^2 \leq 9a^2 + 6a + 1$$

$$h^2 = g a^2 + 720 + q$$

[illegible]

$$2|a \Leftrightarrow 2|a_3$$

$$\leadsto a+b+c \quad p_{AR}$$

$$\begin{matrix} \Downarrow \\ 0_3 + b_3 + c_3 \end{matrix} \quad p_{AR}$$

$$0_3 = 3n \quad \longleftrightarrow \quad a_3 = 3n$$

$$a = 3n+1 \quad \longleftrightarrow \quad a_3 = 3n+1$$

$$a = 3n+2 \quad \longleftrightarrow \quad a_3 = 3n+2$$



$$6 \mid a + b + c \Leftrightarrow 6 \mid a + b + c$$

$$a \equiv b \pmod{n} \quad n \mid a - b$$

$$a \equiv b, \quad a' \equiv b' \Rightarrow a + b \equiv a' + b' \\ a \cdot b \equiv a' \cdot b'$$

$$a = 3n+1 \rightarrow a^7 = 3n+1$$

$$a \equiv 1 \pmod{3}$$

$$a \equiv 2 \pmod{3}$$

$$a^7 \equiv 1^7 \pmod{3}$$

$$a^7 \equiv 1$$

$$2^7 \equiv 2 \cdot 2^6 \equiv 4 \cdot 2^5 \equiv 2^5 \equiv 2^3 \equiv 2$$

$$\pmod{3}$$

$$5^{37} \equiv 5^{32} \equiv 5^2 \equiv 3$$

$$\pmod{11}$$

$$S^2 \equiv 3$$

$$S^3 \equiv 4$$

$$S^4 \equiv 9$$

$$S^5 \equiv 1$$

CONTRAVENZI $\longleftrightarrow$ INIZIALI NEL NON



2011 e norma di due 1] ref.?

CONG mod 2 INUTILIZ

1 ~ 3 INUTILIZ

mod 5:

$0^2 \equiv 0$
 $1^2 \equiv 1$
 $2^2 \equiv 4$
 $3^2 \equiv 4$
 $4^2 \equiv 1$

INUTILIZ

2
 $0 \equiv 0$
 $1 \equiv 1$
mod 7

INUTILIZ

TRAFFIC

BVDA

$2 \equiv 4$
 $3 \equiv 2$
 $4 \equiv 2$
 $5 \equiv 4$
 $6 \equiv 1$

mod 7

0	0	0	0
1	1	1	1
2	4	4	2
3	1	1	4
4	0	0	5

$a \cdot b^2 =$

(8)

5
6
7

||

1
4
1

2011 = 3 (8)

1101

Dim. de l'ordre au minimum d'indices

de fin de 00.

1, 1, 2, 3, 5, 8, 13, 21, ...

$$x_n \dots \exists x_n \equiv 0 \pmod{100}.$$

$$\exists x_n \equiv x_n \pmod{100} \not\Rightarrow x_{n+1} \equiv x_{n+1} \pmod{100}$$

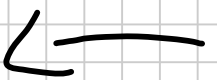
$$\begin{aligned} x_{n+1} &= x_n + x_{n-1} \\ x_{n+1} &= x_n + x_{n-1} \end{aligned}$$

$$\left\{ \begin{aligned} x_n &= x_n \\ x_{n+1} &= x_{n+1} \end{aligned} \right.$$

$\Rightarrow$

$$\left\{ \begin{aligned} x_{n+1} &= x_{n+1} \\ x_{n+2} &= x_{n+2} \end{aligned} \right.$$

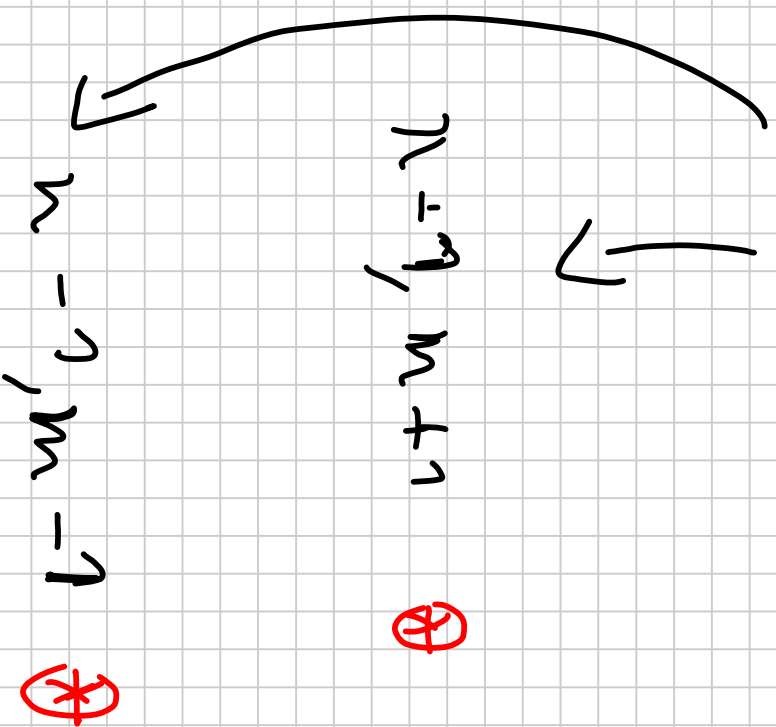
$\vdash n$ is ~~in~~ role



$n-1, n+1$



$n+1, n+2 \dots$



$$\begin{array}{ccc} x_{n-1} & & x_n \\ = & & = \\ x_{n+1} & \equiv & x_n \end{array}$$

$$VAL_i = 1, n-k+1$$

$$1 = x_1 = \dots = x_n = x_{n+1} = \dots = x_{n+m} = 1$$

$$1 \equiv x_2 \equiv \overline{(x_{m-n+2})} \leftarrow$$

$$x_{m-n} \equiv 0 \pmod{100}$$

→ esistono infiniti num. di $\mathbb{Z}_f$.

che sono multipli di k .