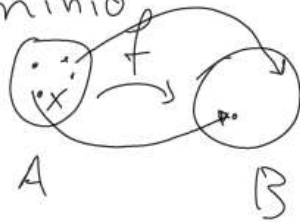


FUNZIONI

dominio



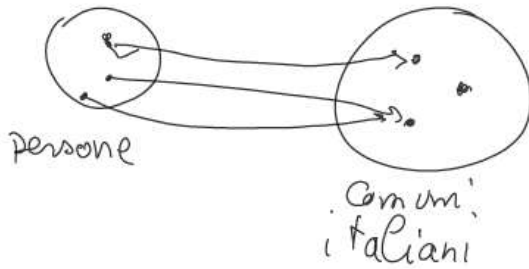
codominio

$$f(x) = x^2 - 6$$

$$f: \mathbb{R} \rightarrow \mathbb{R}$$

non suriettiva
esempio -8
non avranno
freccie

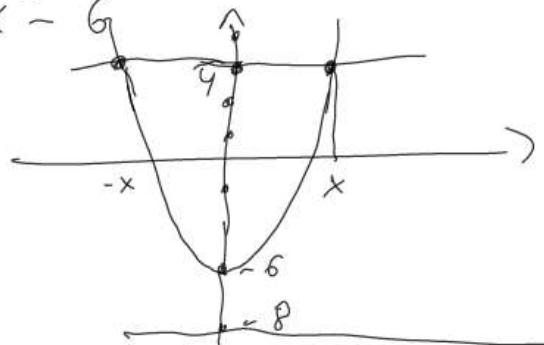
$$f(2) = f(-2) = (-2)$$



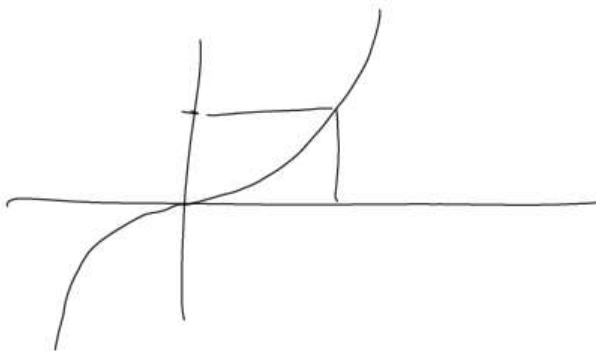
suriettività
iniettività

ogni elem. del codominio è
c'è almeno una freccia
in ogni elem. del codominio
arriva max 1 freccia.

$$f(x) = x^2 - 6$$

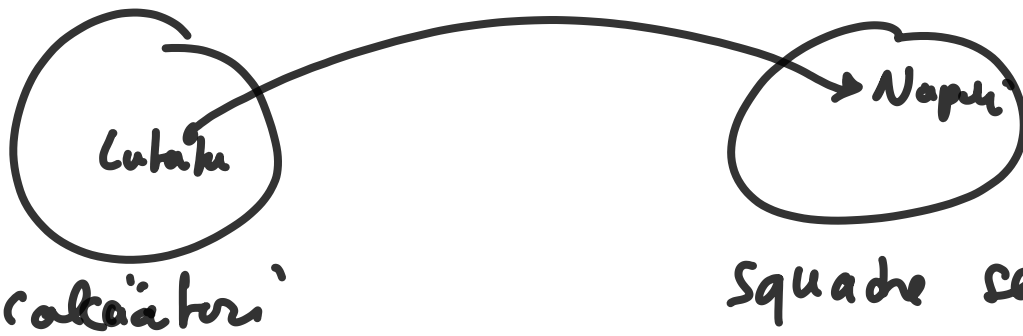


$$y = f(x)$$



$$y = x^3$$

Calciatori	Squadre	database
Barella Lukaku Lautano Calafiori Leao ;	Inter Napoli Inter Fiorentina Milan	



	Napoli	Inter	Milan	Fiorentina	
Lukaku	X				
Leao			X		
Calafiori				X	
Barella		X			
Lautano			X		



$f(p) = \text{immagine di } p$

Controimmagine

$$f^{-1}(q) = \{ p : f(p) = q \}$$

$$\begin{aligned} f &= x^2 - 6 & f^{-1}(3) &= \{ x : f(x) = 3 \} \\ & & &= \{ x : x^2 - 6 = 3 \} \\ & & &= \{ x : x^2 = 9 \} = \{ 3, -3 \} \end{aligned}$$

f : calciatore $\Rightarrow$ squadra

$$f^{-1}(\text{Milan}) = \{ \text{calciatori del Milan} \}$$

$$f^{-1}(q) = \begin{cases} \emptyset & \text{se in } q \text{ non arrivano frecce} \\ \{ p \} & \text{se in } q \text{ arriva una sola freccia} \\ \{ p_1, \dots, p_n \} & \text{se in } q \text{ arrivano più frecce} \end{cases}$$

f suriettiva $\Rightarrow f^{-1}(q)$ non è mai $\emptyset$

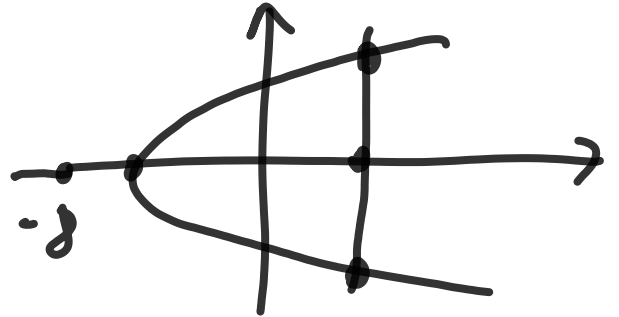
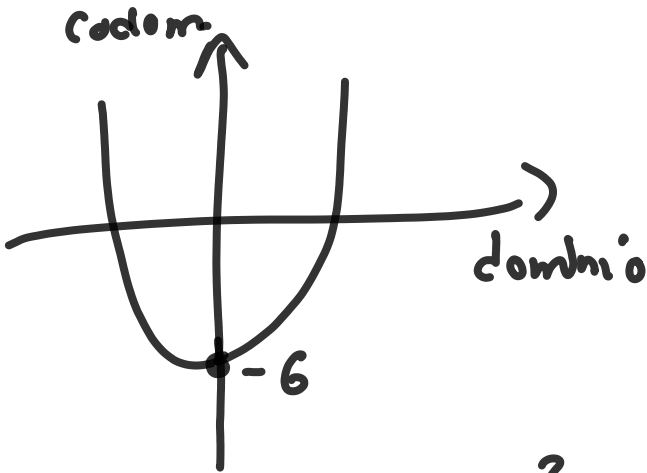
f iniettiva $\Rightarrow f^{-1}(q)$ al max ha un elem.

f^{-1} da Pa função inversa



f é injetiva + surjetiva

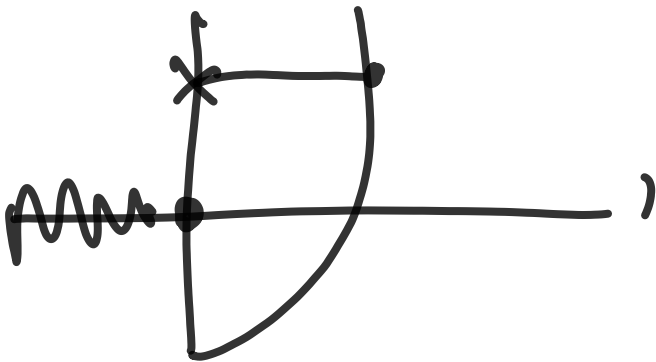
$$f(x) = x^2 - 6$$



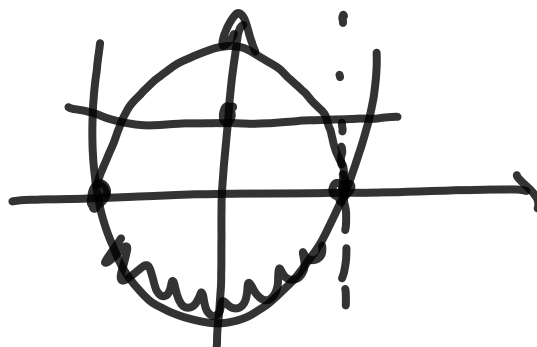
$$y = x^2 - 6$$

$$x^2 = y + 6$$

$$x = \pm \sqrt{y + 6}$$



$$f(x) = |x^2 - 6|$$



Elenco Telefonico

utenze

ti° telefono
attivati



$J^1(\text{Mario Rossi}) = \{ \text{numeri di tel. di Mario Rossi} \}$

