

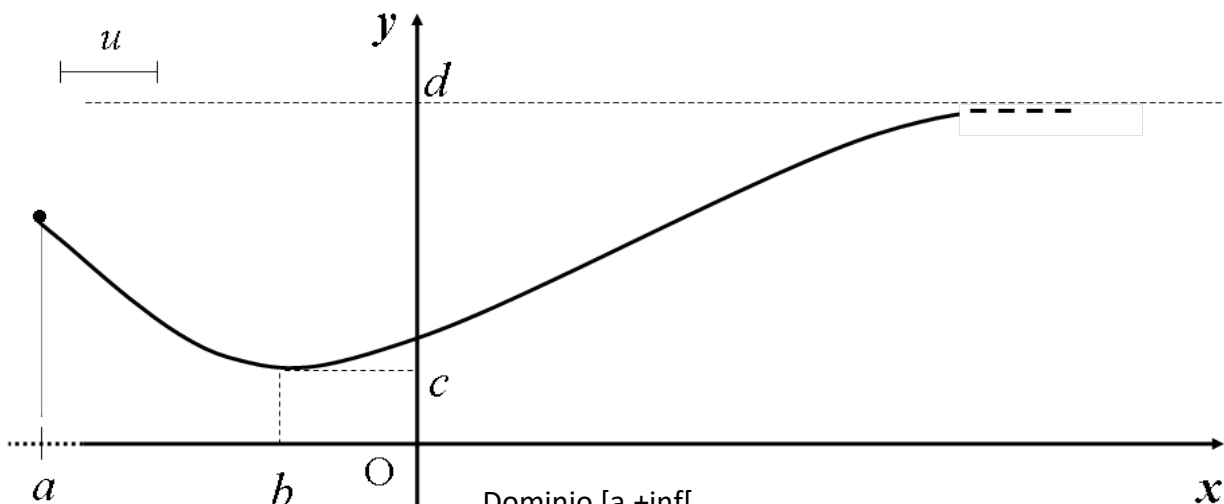


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Esercizi sui interpretazione grafico funzione

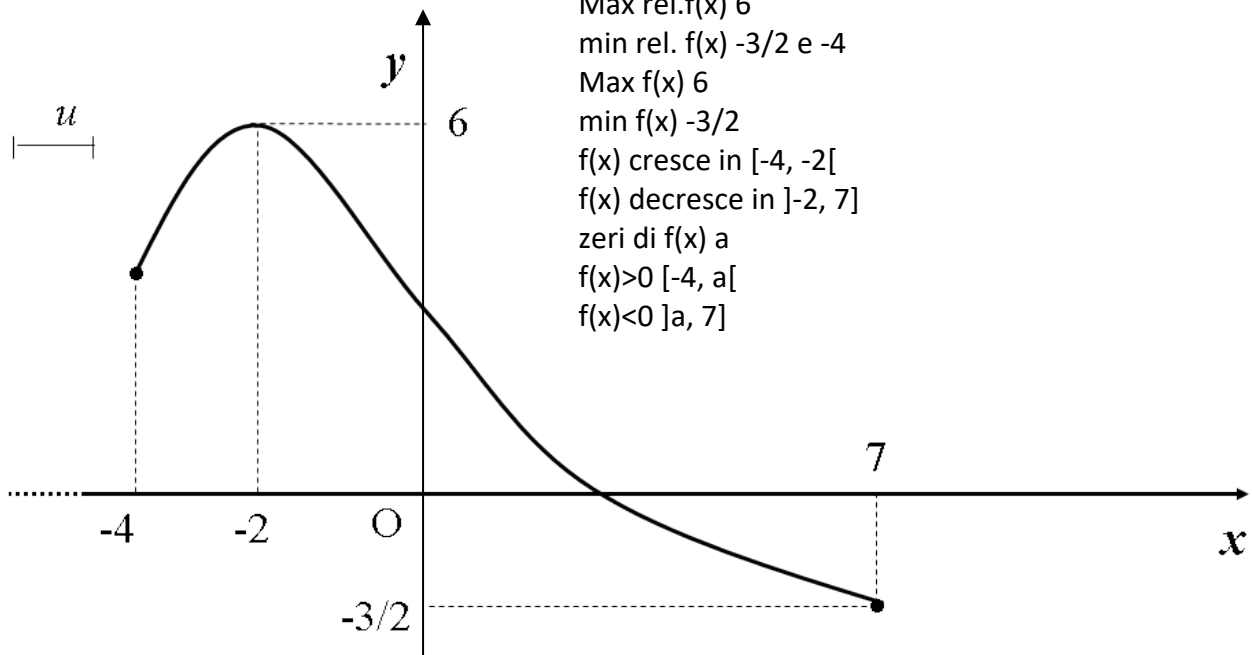
Dal grafico della funzione in figura, determinare:
dominio di f , codominio di f
estremo superiore ed estremo inferiore
massimi e minimi relativi e gli eventuali massimo e minimo assoluto
gli intervalli in cui f cresce e decresce, gli zeri di f , gli intervalli in cui $f > 0$
ed $f < 0$

1



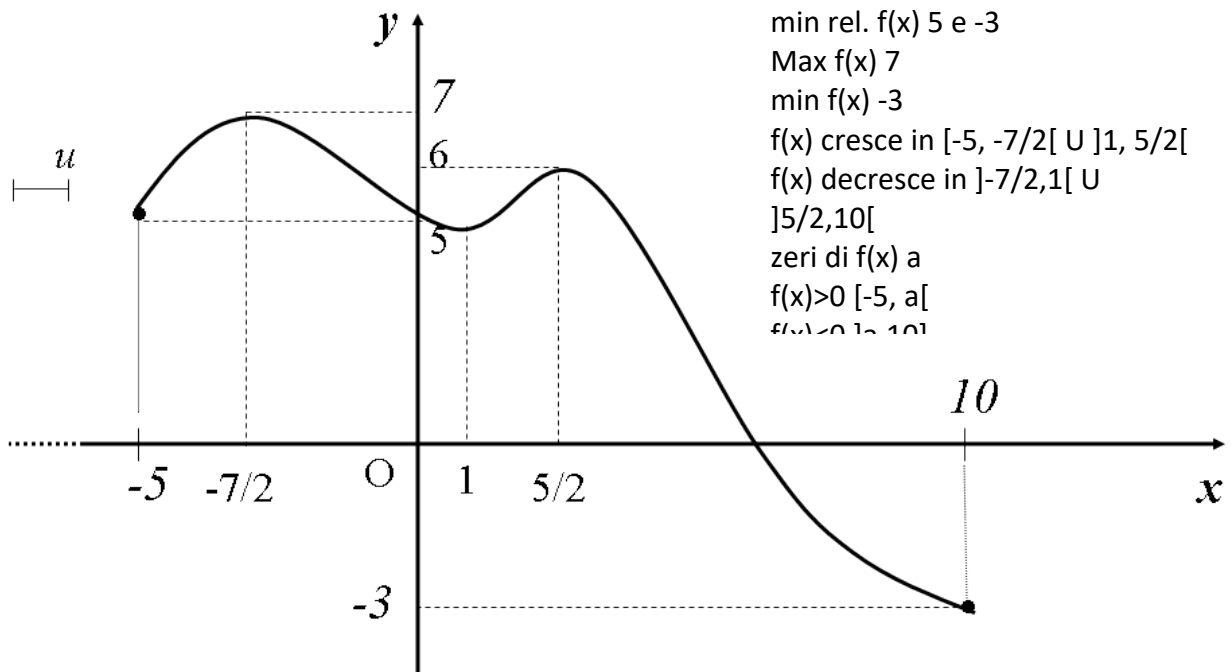
Dominio $[a, +\infty[$
Codominio $[c, d[$
 $\sup f(x)$ d
 $\inf f(x)$ c
Max rel. $f(x)$ a
min rel. $f(x)$ c
Max $f(x)$ -
min $f(x)$ c
 $f(x)$ cresce in $]b, +\infty[$
 $f(x)$ decresce in $[a, b[$
zeri di $f(x)$ -
 $f(x) > 0$ $[a, +\infty[$
 $f(x) < 0$ -

2



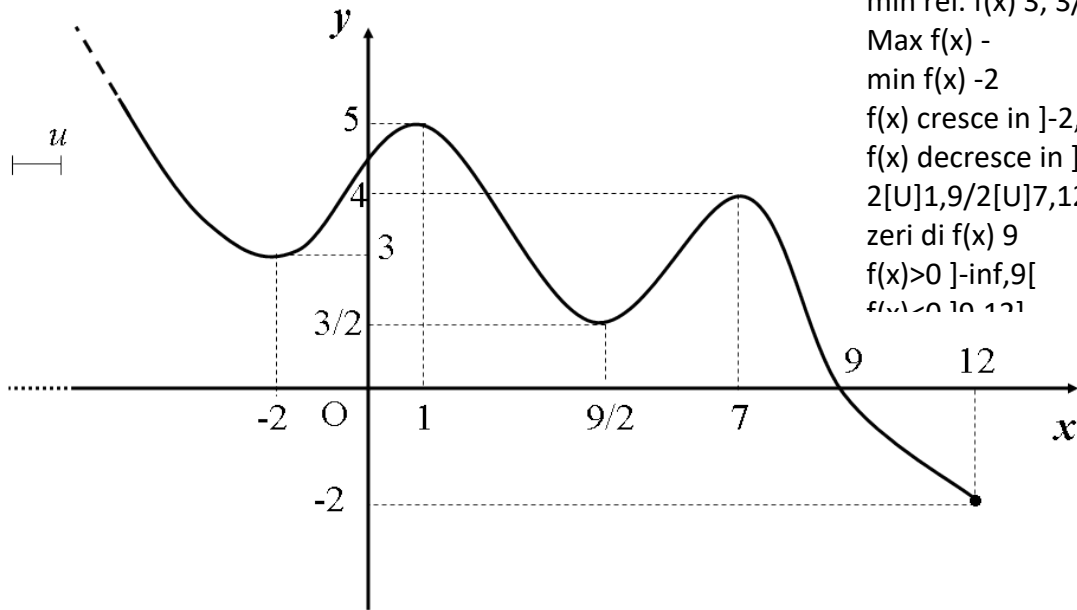
Dominio $[-4, 7]$
Codominio $[-3/2, 6]$
 $\sup f(x)$ 6
 $\inf f(x)$ $-3/2$
Max rel. $f(x)$ 6
min rel. $f(x)$ $-3/2$ e -4
Max $f(x)$ 6
min $f(x)$ $-3/2$
 $f(x)$ cresce in $[-4, -2[$
 $f(x)$ decresce in $]-2, 7]$
zeri di $f(x)$ a
 $f(x) > 0$ $[-4, a[$
 $f(x) < 0$ $]a, 7]$

3



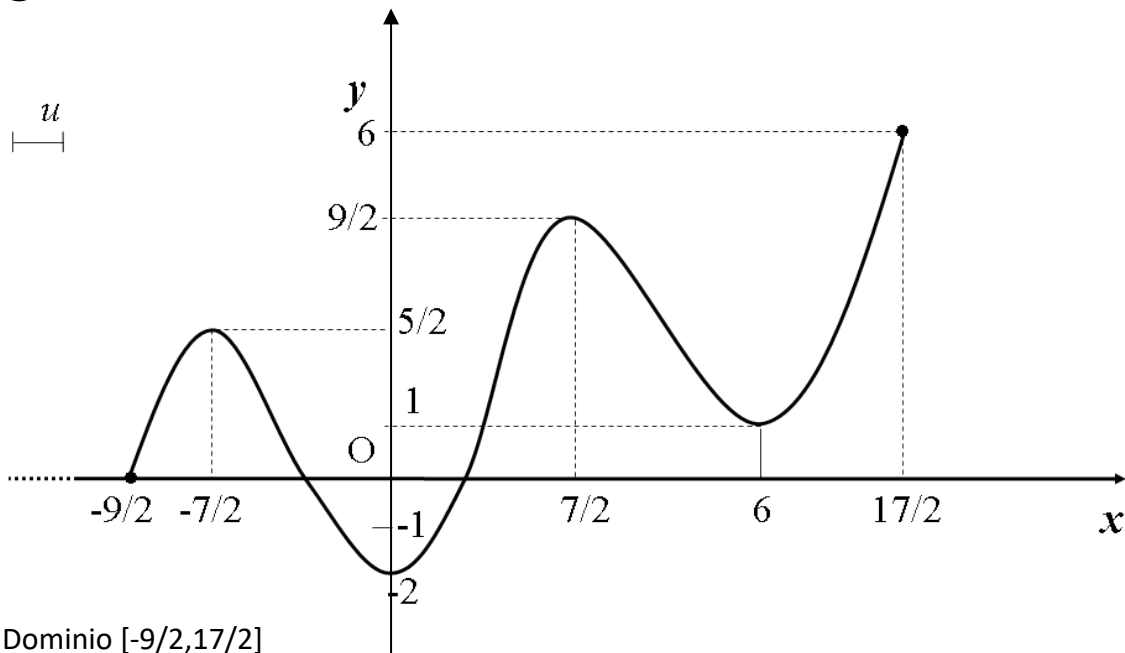
Dominio $[-5, 10]$
Codominio $[-3, 7]$
 $\sup f(x)$ 7
 $\inf f(x)$ -3
Max rel. $f(x)$ 7 e 6
min rel. $f(x)$ 5 e -3
Max $f(x)$ 7
min $f(x)$ -3
 $f(x)$ cresce in $[-5, -7/2[\cup]1, 5/2[$
 $f(x)$ decresce in $]-7/2, 1[\cup]5/2, 10[$
zeri di $f(x)$ a
 $f(x) > 0$ $[-5, a[$
 $f(x) < 0$ $]a, 10]$

4



Dominio $]-\infty, 12]$
 Codominio $[-2, +\infty[$
 $\sup f(x) +\infty$
 $\inf f(x) -2$
 Max rel. $f(x) 5, 4$
 min rel. $f(x) 3, 3/2 -2$
 Max $f(x) -$
 min $f(x) -2$
 $f(x)$ cresce in $]-2, 1[\cup]9/2, 7[$
 $f(x)$ decresce in $]-\infty, -2[\cup]1, 9/2[\cup]7, 12[$
 zeri di $f(x) 9$
 $f(x) > 0]-\infty, 9[$
 $f(x) < 0]9, 12]$

5



Dominio $[-9/2, 17/2]$
 Codominio $[-2, 6]$
 $\sup f(x) 6$
 $\inf f(x) -2$
 Max rel. $f(x) 5/2, 9/2, 6$
 min rel. $f(x) 0, -2, 1$
 Max $f(x) 6$
 min $f(x) -2$
 $f(x)$ cresce in $[-9/2, -7/2[\cup]0, 7/2[\cup]6, 17/2[$
 $f(x)$ decresce in $]-7/2, 0[\cup]7/2, 6[$
 zeri di $f(x) -9/2, a, b$
 $f(x) > 0]-9/2, a[\cup]b, 17/2[$
 $f(x) < 0]a, b[$