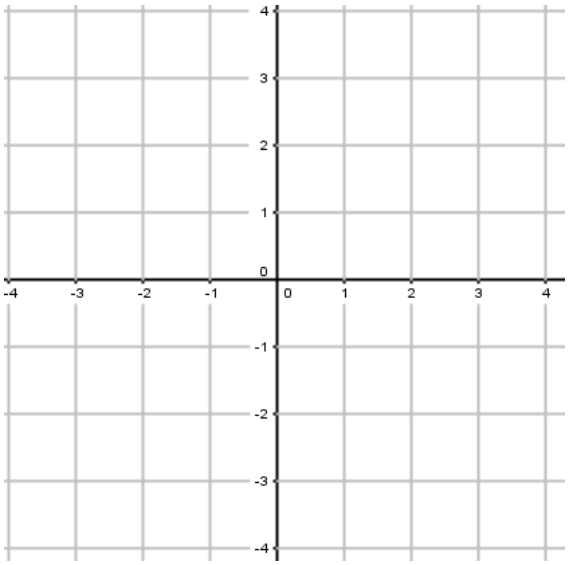
Serie 17 Rappresentazione grafica di funzioni. **19 febbraio 2024**

1) Rappresenta le seguenti funzioni reali utilizzando le trasformazioni geometriche.
Se non fossi troppo oberato di lavoro potresti provare con **GeoGebra**.

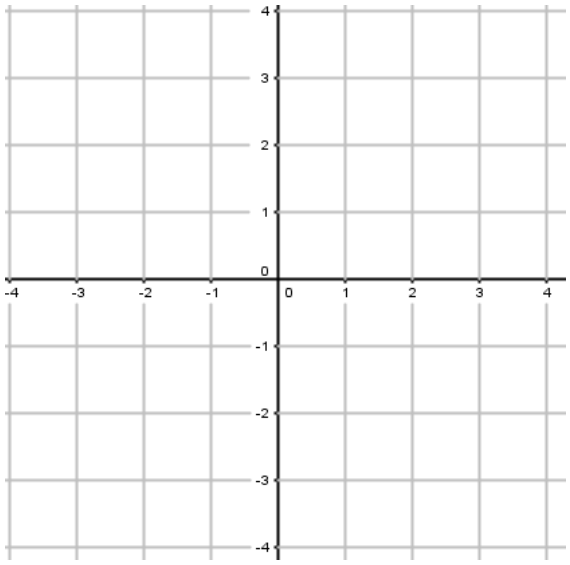
a) $f: x \mapsto x$; $f': x \mapsto x + 2$; $f'': x \mapsto x - 2$

$f''': x \mapsto -x$; $f^{iv}: x \mapsto -x + 2$; $f^{v}: x \mapsto -x - 2$



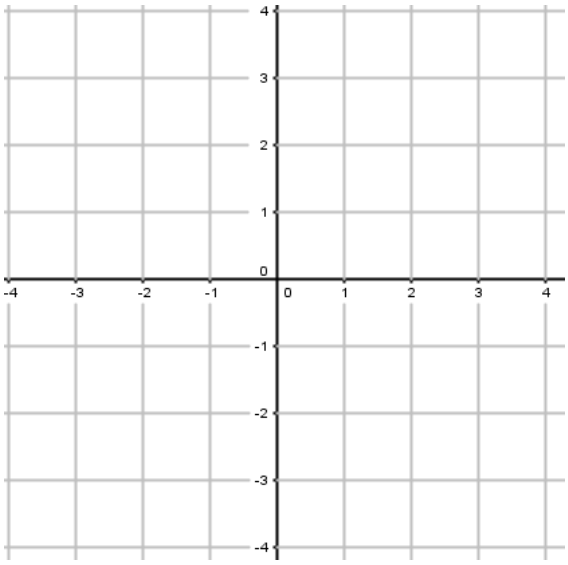
b) $g: x \mapsto x^2$; $g': x \mapsto x^2 + 1$; $g'': x \mapsto x^2 - 1$

$\hbar: x \mapsto -x^2$; $\hbar': x \mapsto -x^2 + 3$; $\hbar'': x \mapsto -x^2 - 1$



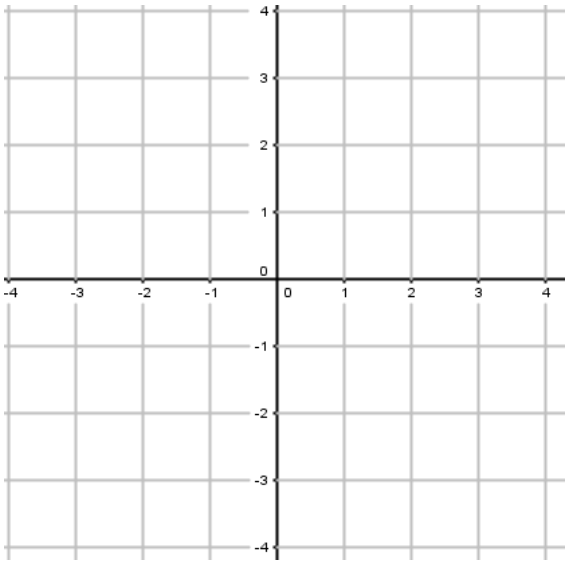
c) $h: x \mapsto |x|$; $h': x \mapsto |x| + 2$; $h'': x \mapsto |x| - 2$

$h''': x \mapsto -|x|$; $h'^{v}: x \mapsto -|x| + 2$; $h^{v}: x \mapsto -|x| - 1$



d) $k: x \mapsto \frac{1}{x}$; $k': x \mapsto \frac{1}{x} + 1$; $k'': x \mapsto \frac{1}{x} - 1$

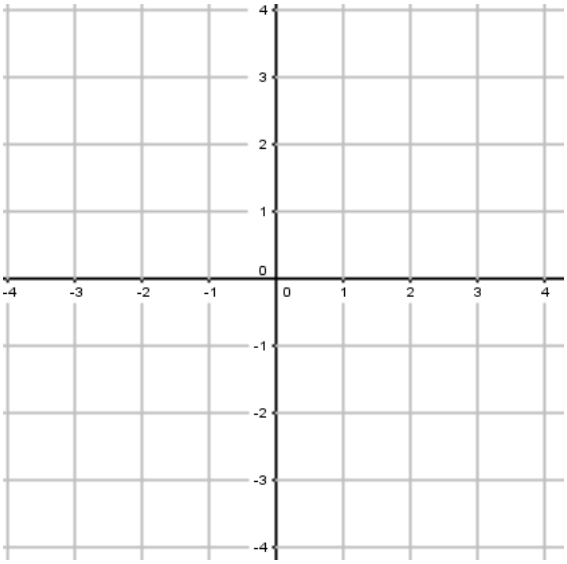
$k''': x \mapsto -\frac{1}{x}$; $k'^{v}: x \mapsto -\frac{1}{x} + 1$; $k^{v}: x \mapsto -\frac{1}{x} - 1$



2) Rappresenta alcuni punti dei grafici delle seguenti funzioni, tabulandole, utilizzando fx85, nell'insieme considerato ed immaginare come potrebbero essere i loro andamenti.

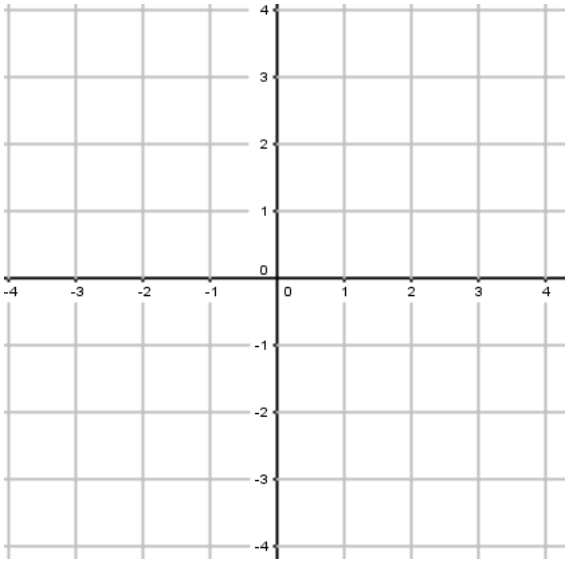
a) $g: [-3;+3] \mapsto \mathbb{Z}\ ; x \mapsto -x+1$ (passo 1)

$h: [-3;+3] \mapsto \mapsto \mathbb{Z}\ ; x \mapsto -x^2+4$



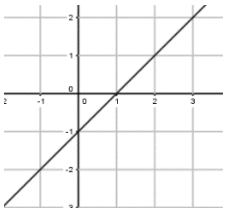
b) $m: [-4;+4] \mapsto \mathbb{R}\ ; x \mapsto \frac{x}{x+1}$ (passo 0,5)

$n: [-4;+4] \mapsto \mathbb{R}\ ; x \mapsto \sqrt[3]{x}+1$

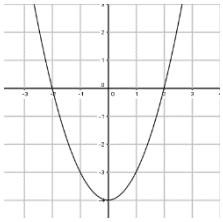


3) Determina per quali valori dell'ascissa la funzione considerata è $<\ ;=\ ;>$ $di\ 0$.

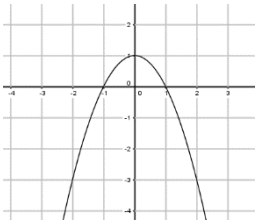
a)



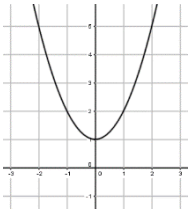
b)



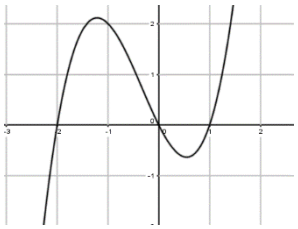
c)



d)

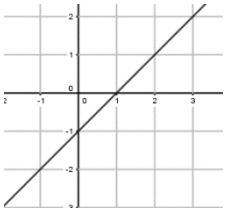


e)

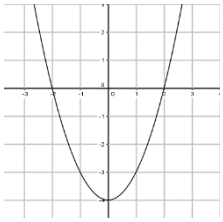


4) Determina per quali valori dell'ascissa la funzione considerata è $<\ ;=\ ;>$ $di\ 1$.

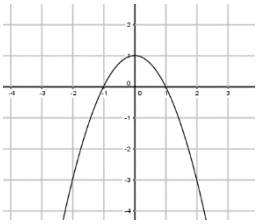
a)



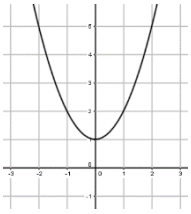
b)



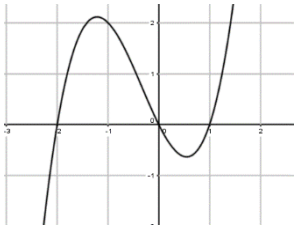
c)



d)

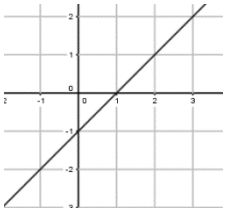


e)

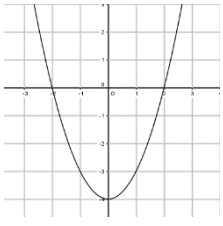


5) Determina per quali valori dell'ascissa la funzione considerata è $<\ ;=\ ;>$ $di\ -1$.

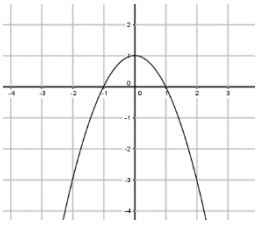
a)



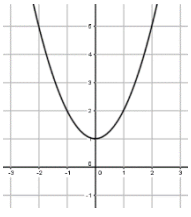
b)



c)



d)



e)

