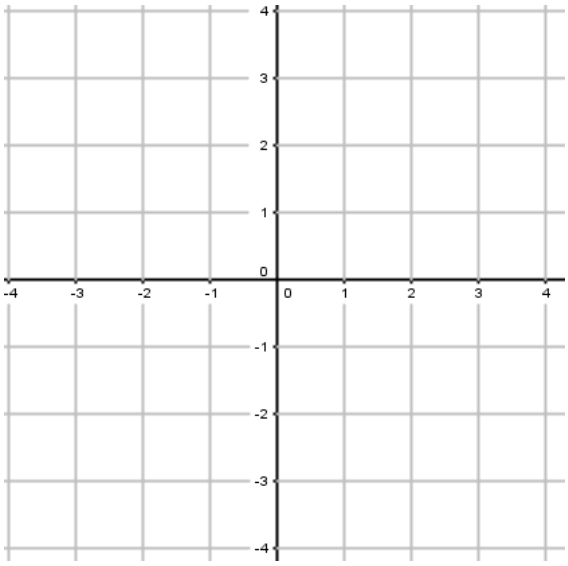
Serie 7 Rappresentazione grafica di funzioni. **9 gennaio 2023**

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

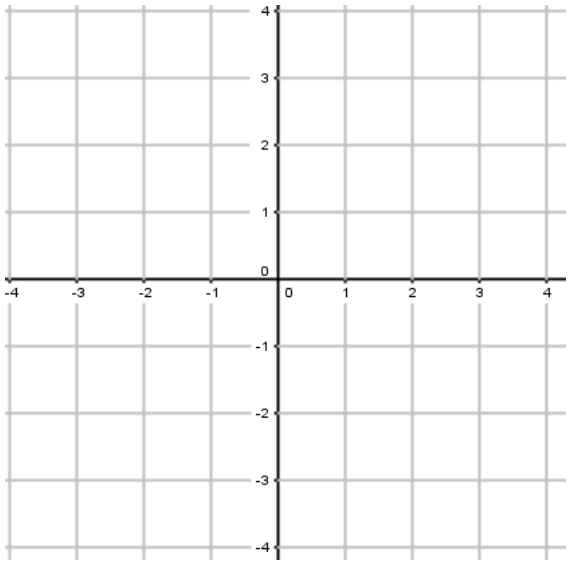
a) $f: x \mapsto x \;;\; f': x \mapsto x+2 \;;\; f'': x \mapsto x-2$

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



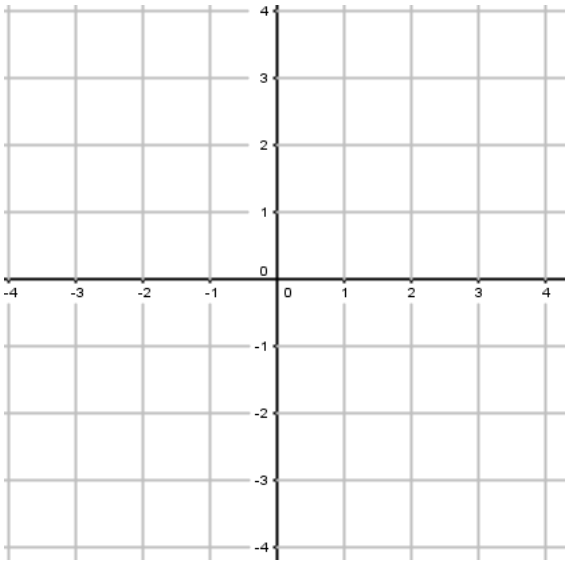
b) $g: x \mapsto x^2 \;;\; g': x \mapsto x^2+1 \;;\; g'': x \mapsto x^2-1$

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



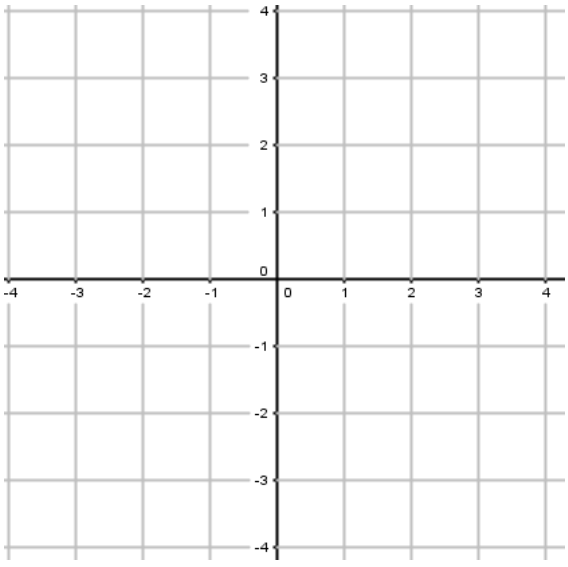
c) $h: x \mapsto |x| \;;\; h': x \mapsto |x|+2 \;;\; h'': x \mapsto |x|-2$

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



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

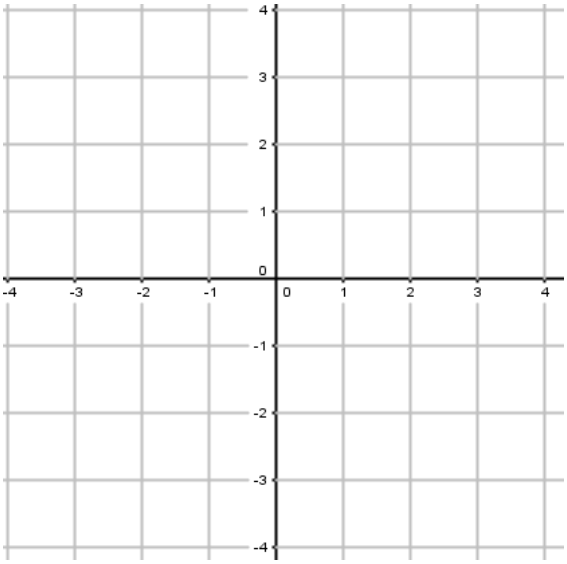
$k''': x \mapsto -\frac{1}{x} \;;\; k'^{v}: x \mapsto -\frac{1}{x}+1 \;;\; k^{v}: x \mapsto -\frac{1}{x}-1$



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

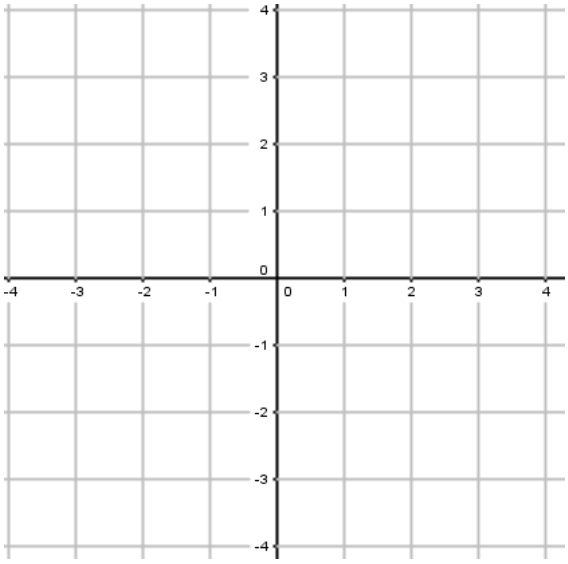
a) $g: [-3;+3] \mapsto \mathbb{Z}\ ; x \mapsto -x+1$ (passo 1)

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



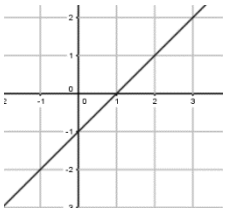
b) $m: [-4;+4] \mapsto \mathbb{R}\ ; x \mapsto \frac{x}{x+1}$ (passo 0,5)

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

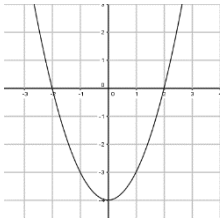


3) Determina per quali valori dell'ascissa la funzione considerata è $<\ ;=\ ;>$ $di\ 0$.

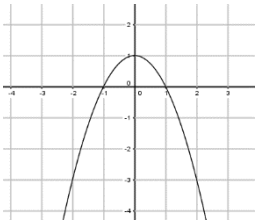
a)



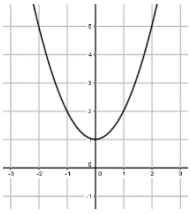
b)



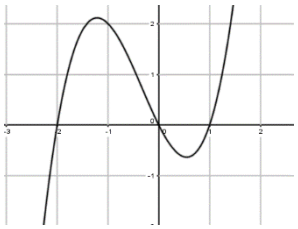
c)



d)

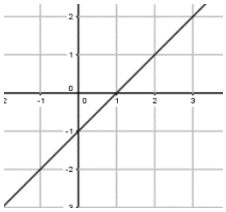


e)

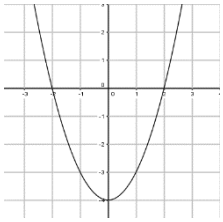


4) Determina per quali valori dell'ascissa la funzione considerata è $<\ ;=\ ;>$ $di\ 1$.

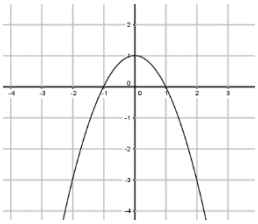
a)



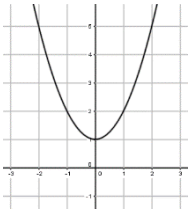
b)



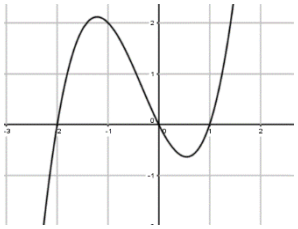
c)



d)

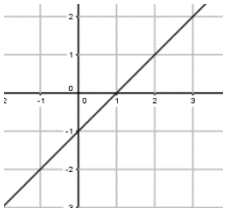


e)

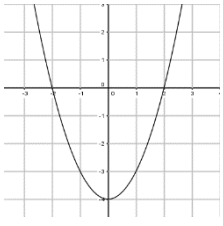


5) Determina per quali valori dell'ascissa la funzione considerata è $<\ ;=\ ;>$ $di\ -1$.

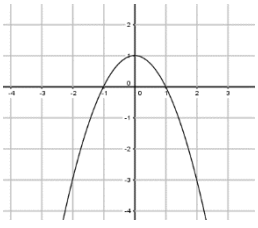
a)



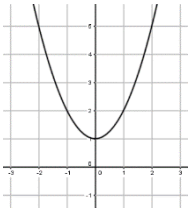
b)



c)



d)



e)

