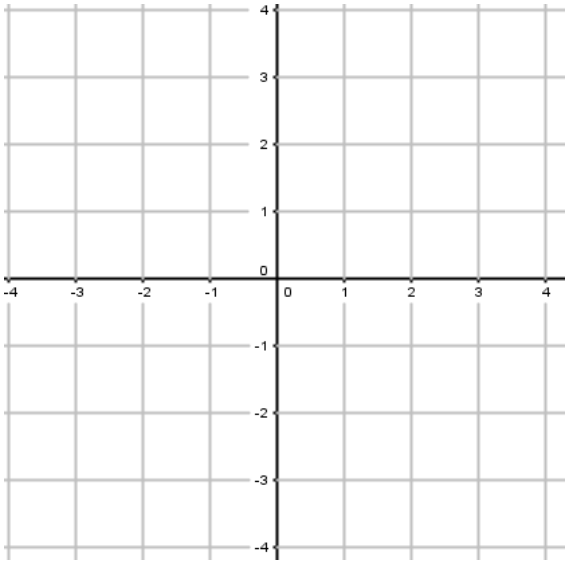
**Serie 5 Rappresentazione grafica di funzioni.** **25 gennaio 2021**

1) Rappresenta le seguenti funzioni reali utilizzando le trasformazioni geometriche.

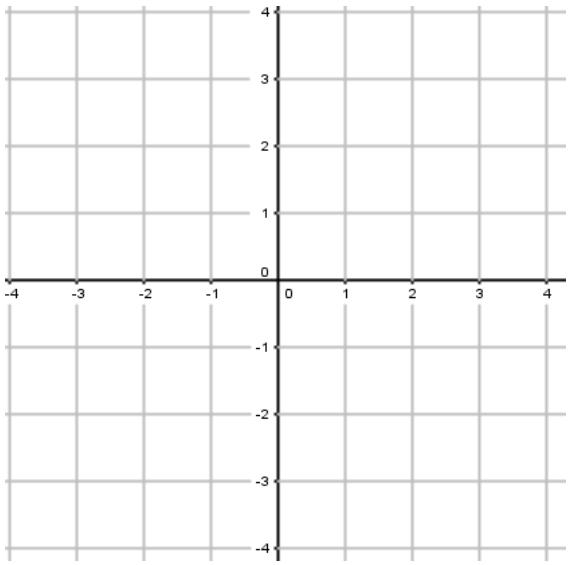
a) $f: x \mapsto x \ ; f': x \mapsto x+2 \ ; f'': x \mapsto x-2$

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



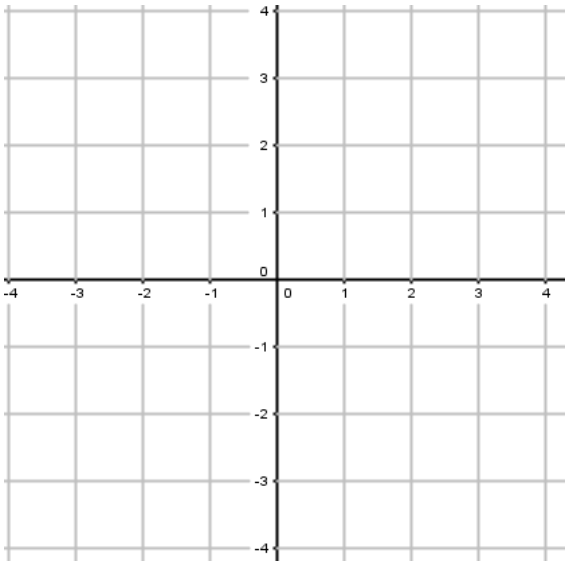
b) $g: x \mapsto x^2 \ ; g': x \mapsto x^2+1 \ ; g'': x \mapsto x^2-1$

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



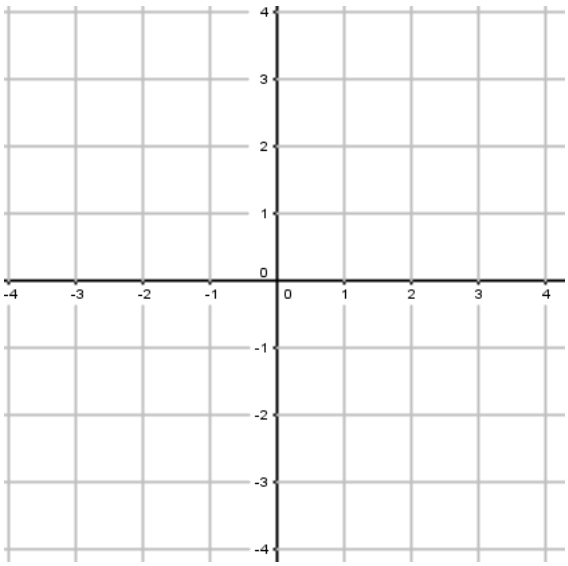
c) $\mathrm{h}: \mathrm{x} \mapsto |\mathrm{x}| \ ; \ \mathrm{h}': \mathrm{x} \mapsto |\mathrm{x}|+2 \ ; \mathrm{h}'': \mathrm{x} \mapsto |\mathrm{x}|-2$

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



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

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



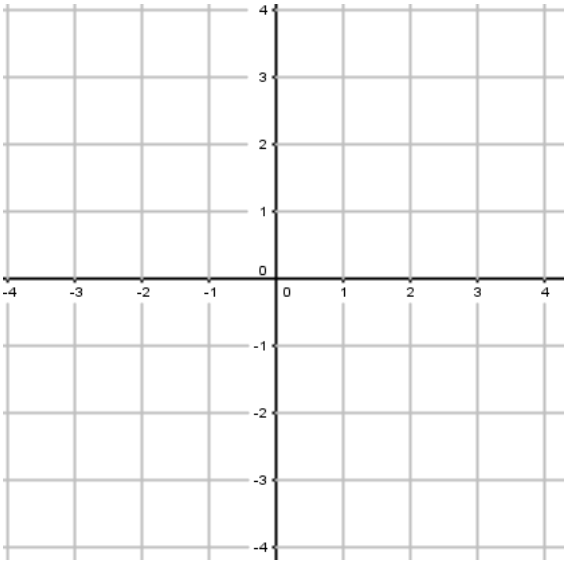
2) Rappresenta alcuni punti dei grafici delle seguenti funzioni, tabulandole, utilizzando fx85, nell'insieme considerato ed immaginare come potrebbero essere i loro andamenti.

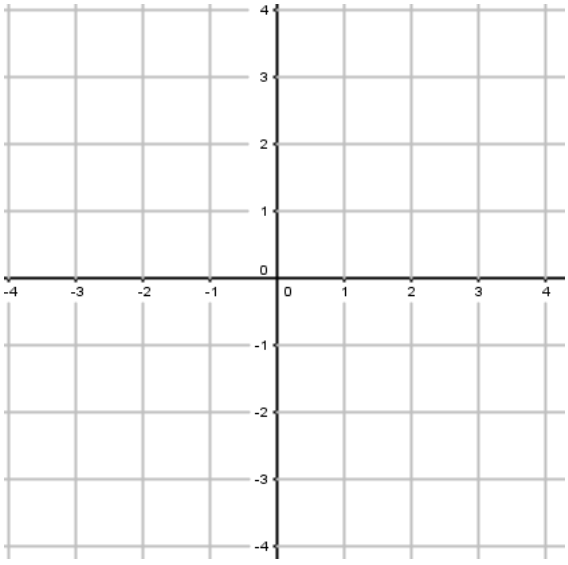
a) $g\colon [-3;+3] \mapsto \mathbb{Z}\ ; x \mapsto -x+1$ ( passo 1)

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

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

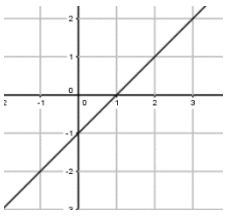
$n\colon [-4;+4] \mapsto \mathbb{R}\ ; x \mapsto \sqrt[3]{x}+1$

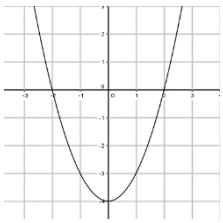


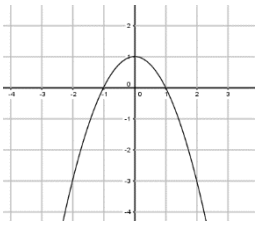


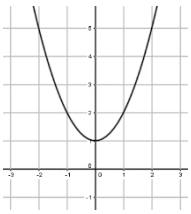
3) Determina per quali valori dell'ascissa la funzione considerata è $< ; = ; > \ di\ 0$.

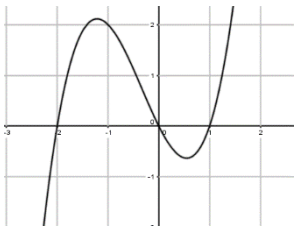
a) b) c) d) e)





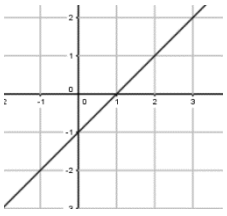


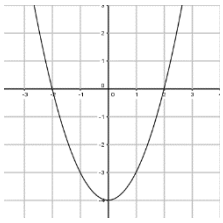


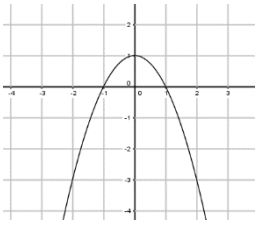


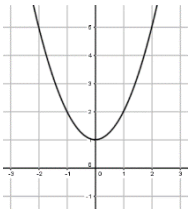
4) Determina per quali valori dell'ascissa la funzione considerata è $< ; = ; > \ di\ 1$.

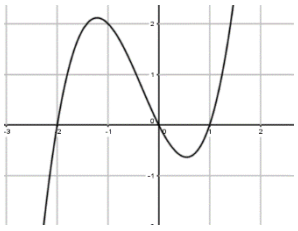
a) b) c) d) e)











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

a) b) c) d) e)

