

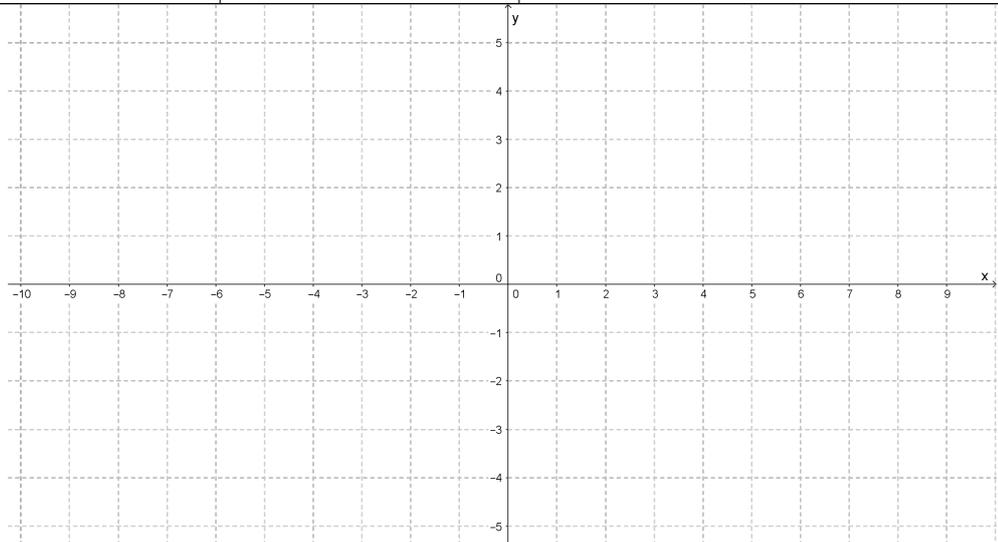
## MANIPULATIONS GRAPHIQUES DE FONCTIONS : INTRODUCTION

Dans chacun des cas suivants, dessiner les graphes des deux fonctions proposées. Conclure en constatant comment construire le graphe de  $f_2(x)$  à partir du graphe de  $f_1(x)$ . Déterminer la modification algébrique de la fonction  $f_2(x)$  par rapport à la fonction  $f_1(x)$  et observer la conséquence graphique du changement trouvé.

Fonction $f_1(x)$	Fonction $f_2(x)$	Constatations graphiques
$f_1(x) = x^2$	$f_2(x) = x^2 + 2$	

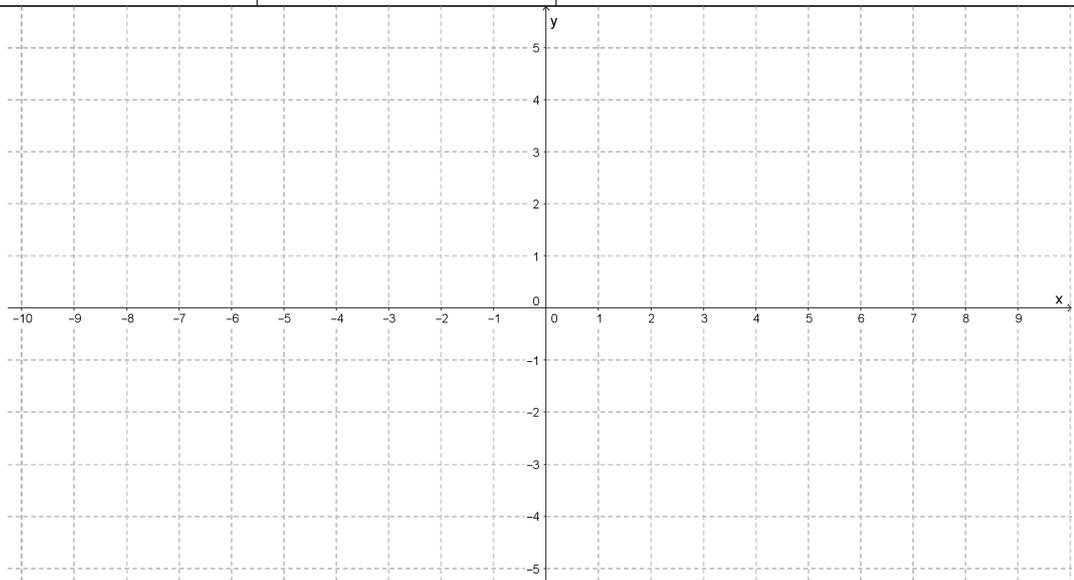
$$f_1(x) = x^2$$

$$f_2(x) = x^2 - 3$$



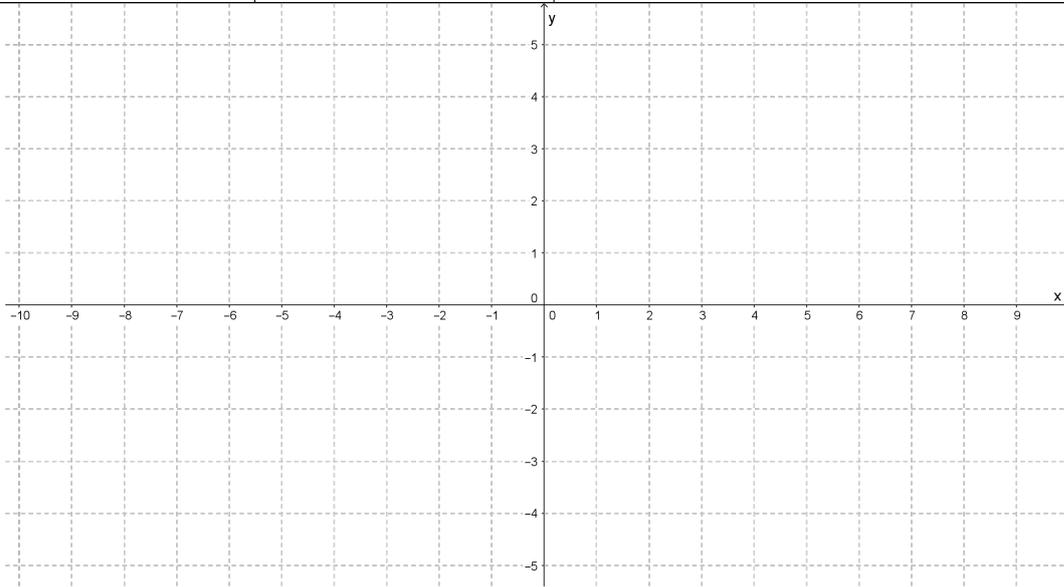
$$f_1(x) = \sqrt{x}$$

$$f_2(x) = 2\sqrt{x}$$



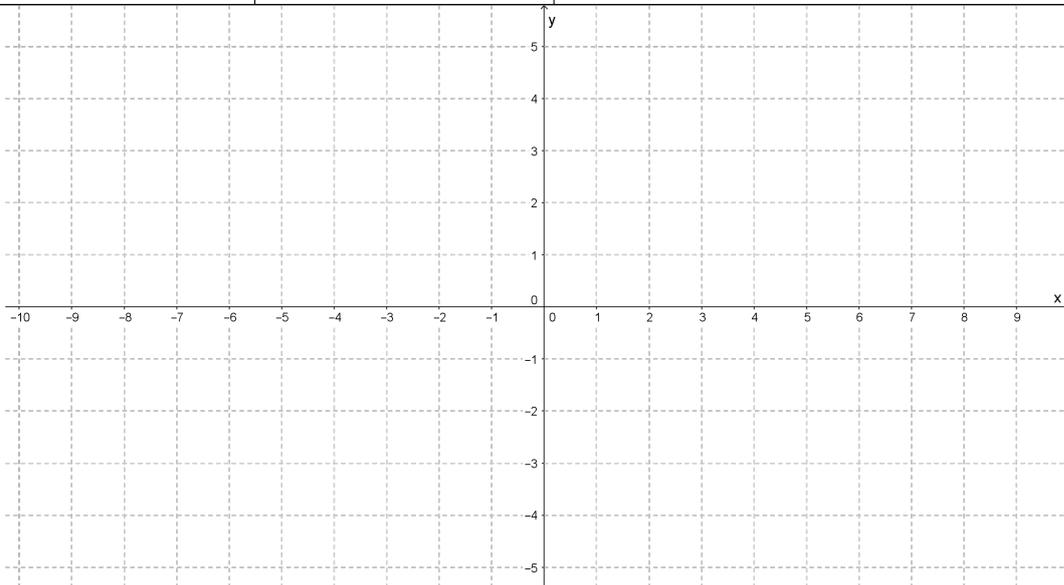
$$f_1(x) = \sqrt{x}$$

$$f_2(x) = \frac{1}{2}\sqrt{x}$$



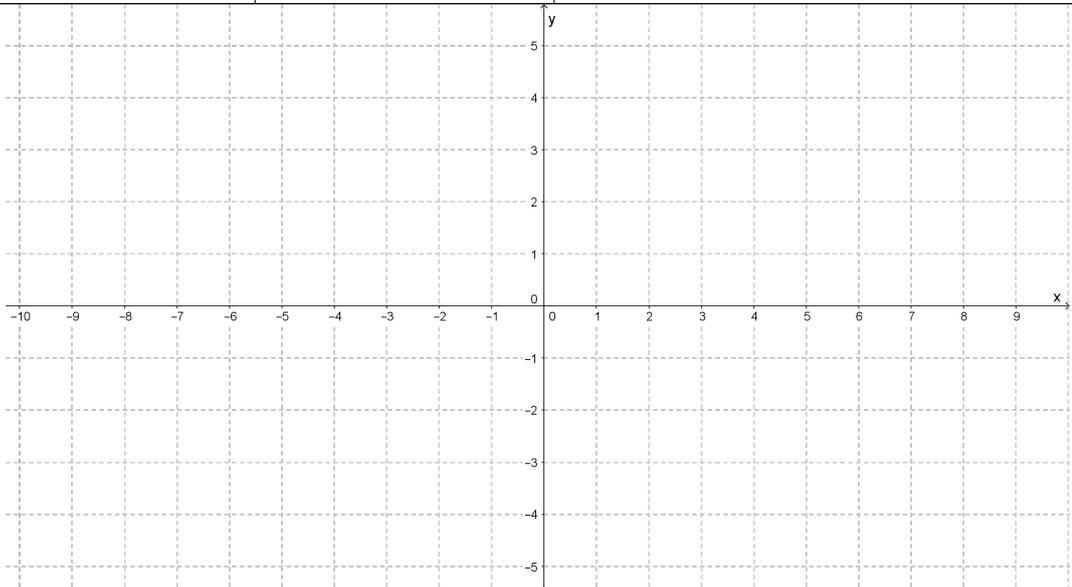
$$f_1(x) = x^2$$

$$f_2(x) = (x + 1)^2$$



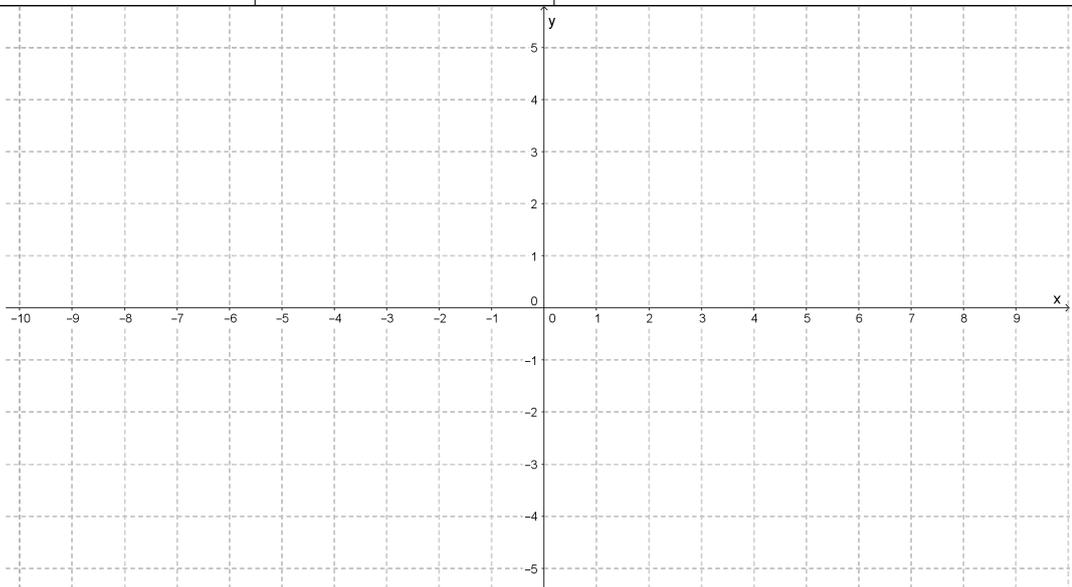
$$f_1(x) = x^2$$

$$f_2(x) = (x - 2)^2$$



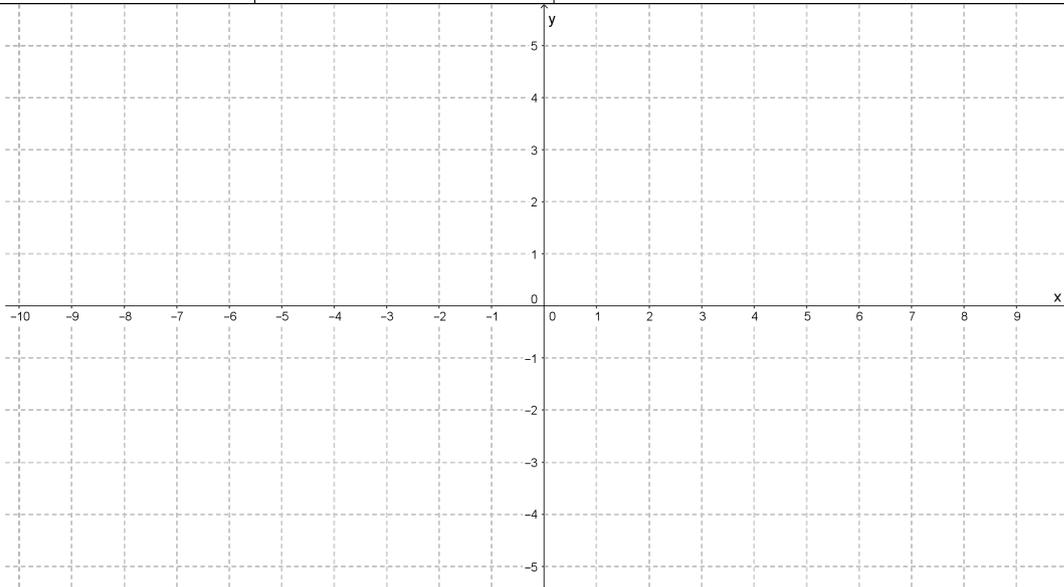
$$f_1(x) = \sqrt{x}$$

$$f_2(x) = \sqrt{2x}$$



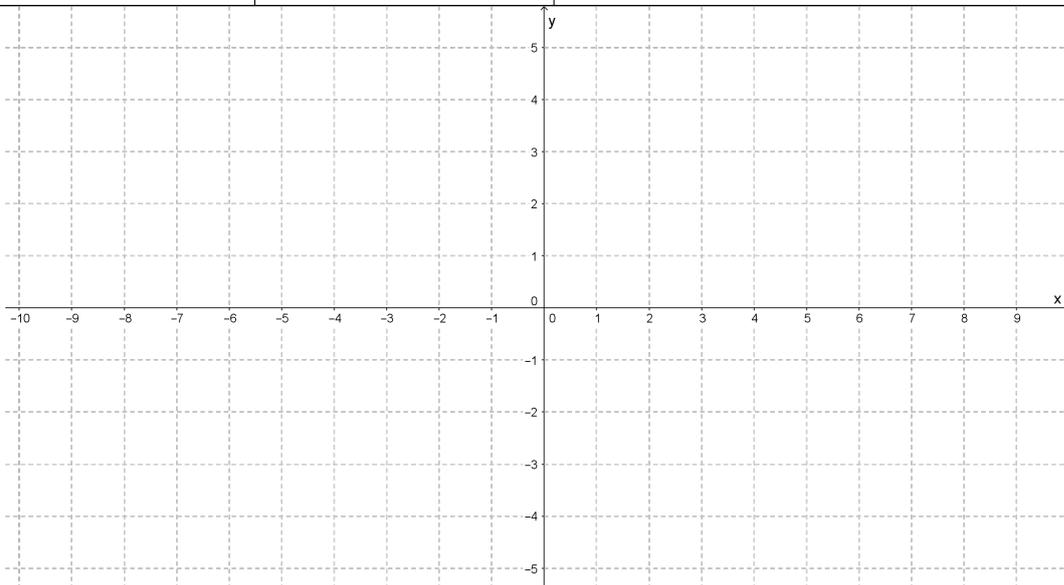
$$f_1(x) = \sqrt{x}$$

$$f_2(x) = \sqrt{\frac{1}{2}x}$$



$$f_1(x) = \sqrt{x}$$

$$f_2(x) = -\sqrt{x}$$



$$f_1(x) = \sqrt{x}$$

$$f_2(x) = \sqrt{-x}$$

