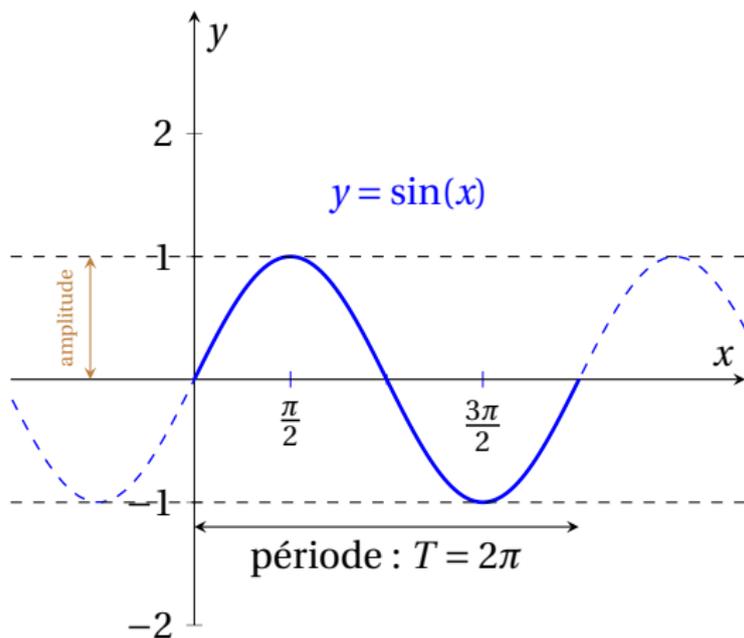


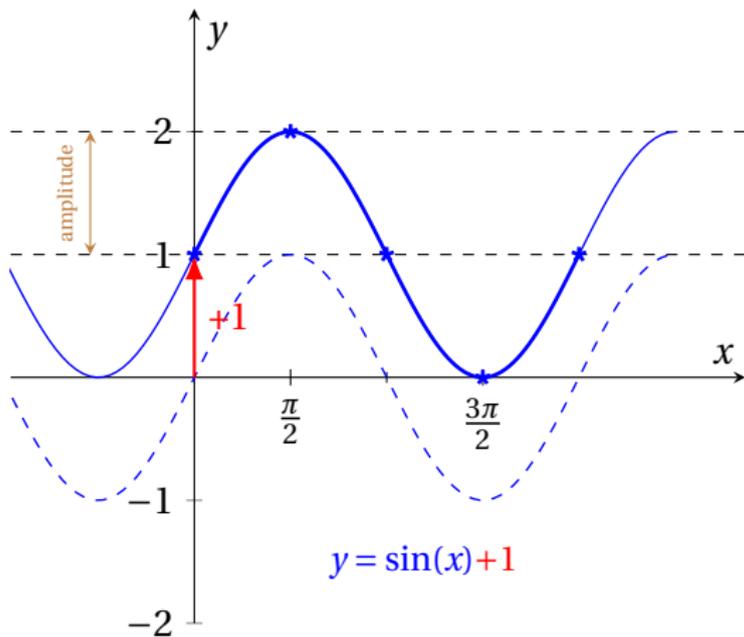
Graphique de la fonction sinus

fonction usuelle



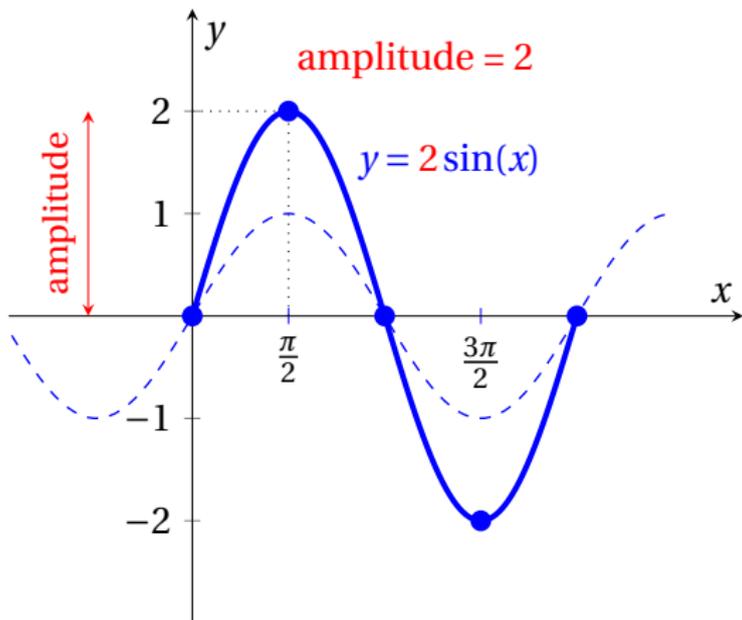
Manipulation graphique

translation verticale



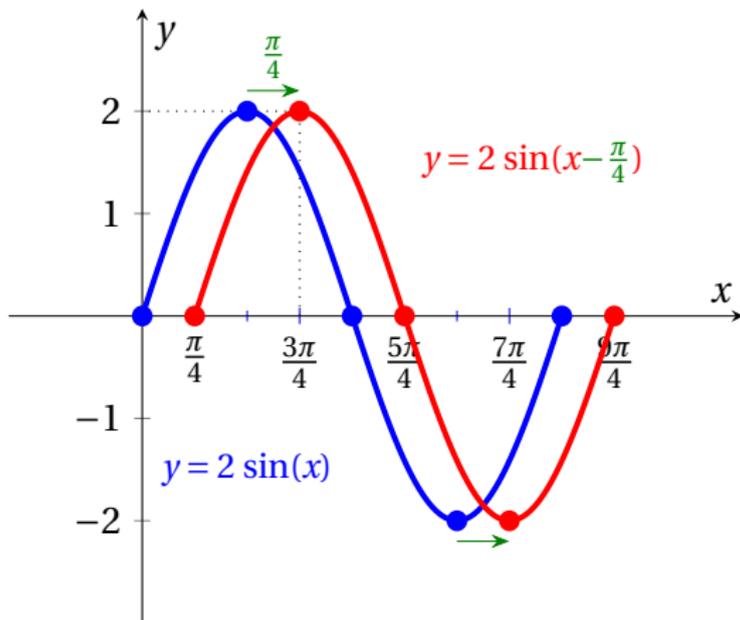
Manipulation graphique

dilatation verticale



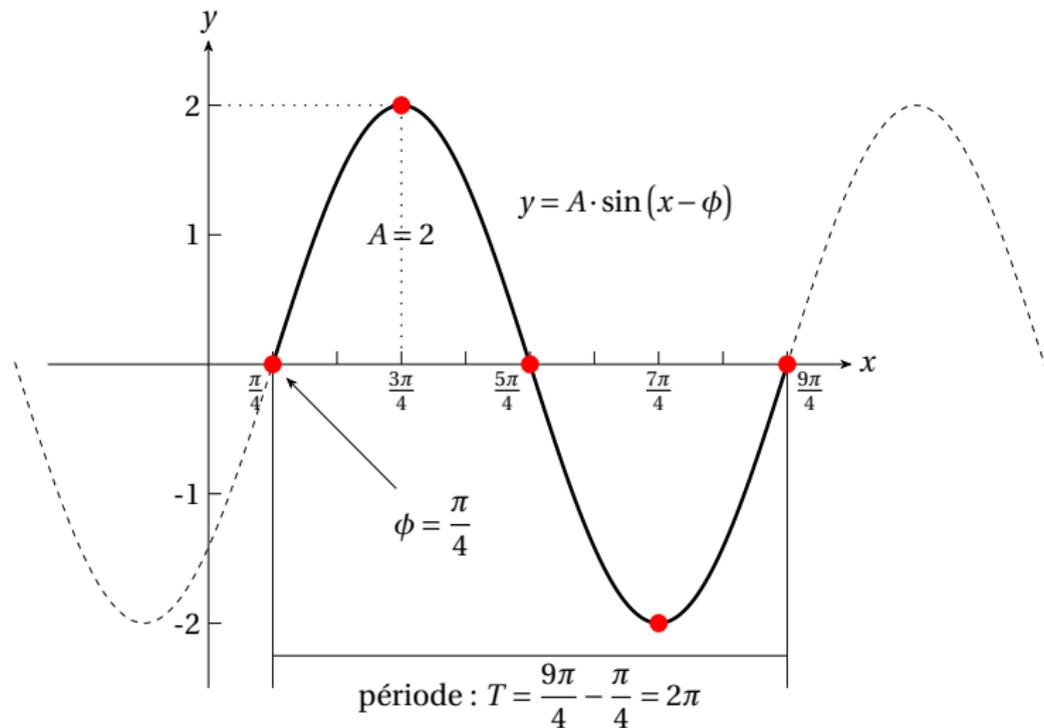
Manipulation graphique

translation horizontale



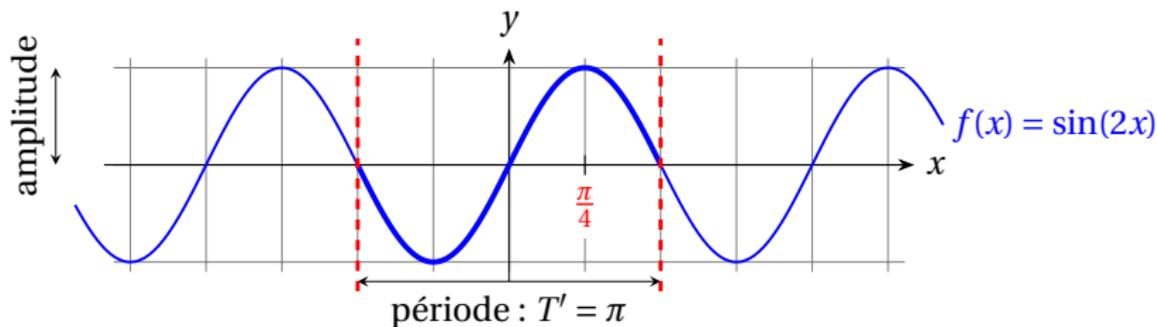
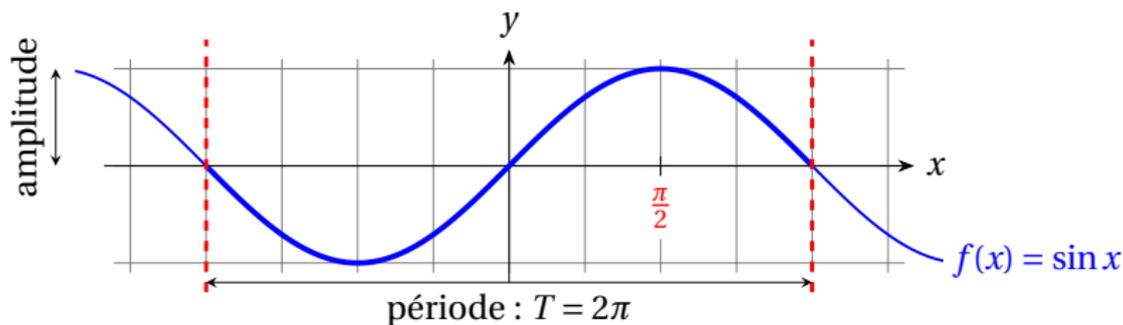
Manipulation graphique

translation horizontale & dilatation verticale

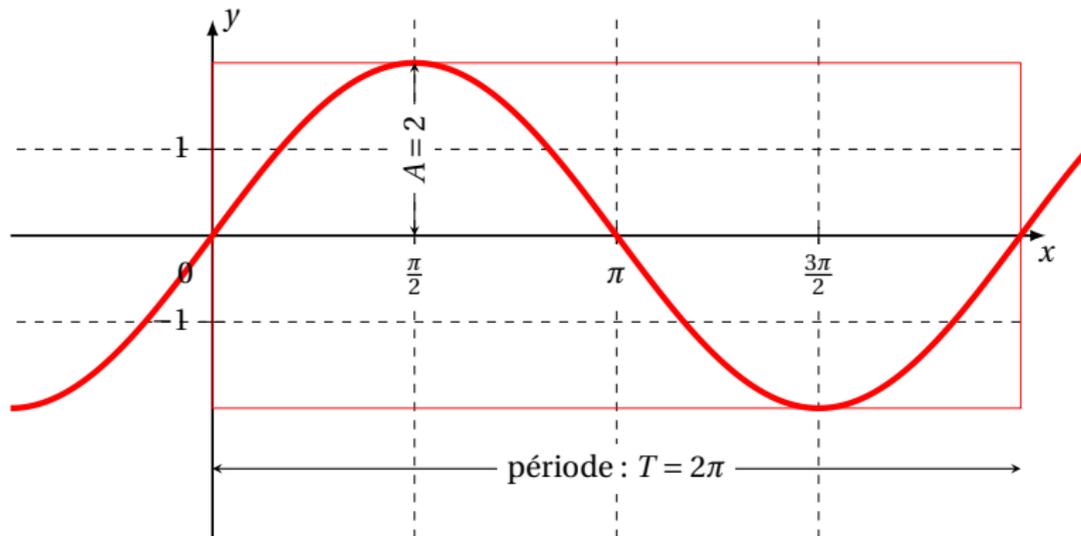


Manipulation graphique

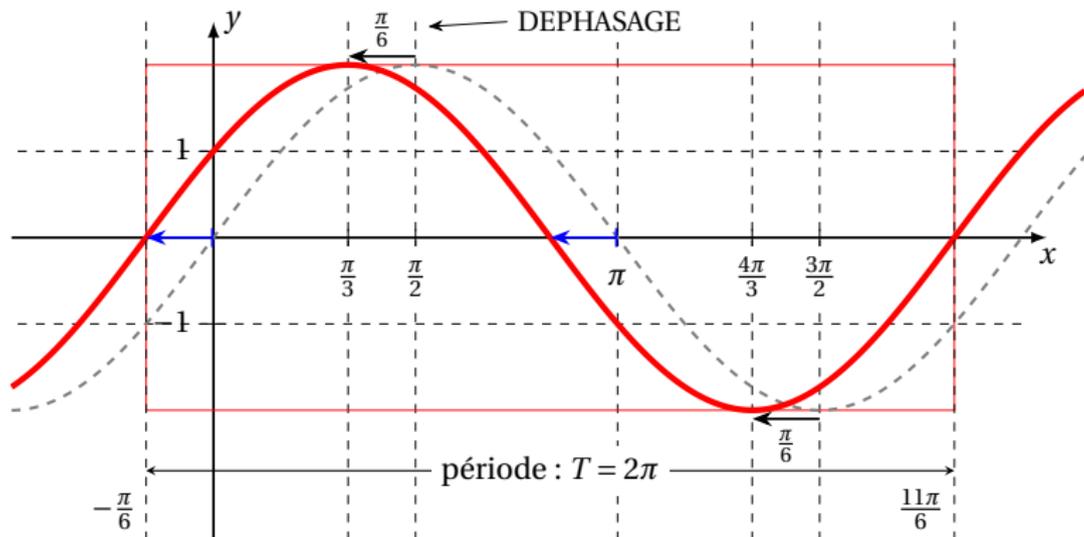
contraction horizontale - modification de la période



$$y = 2 \sin(x)$$

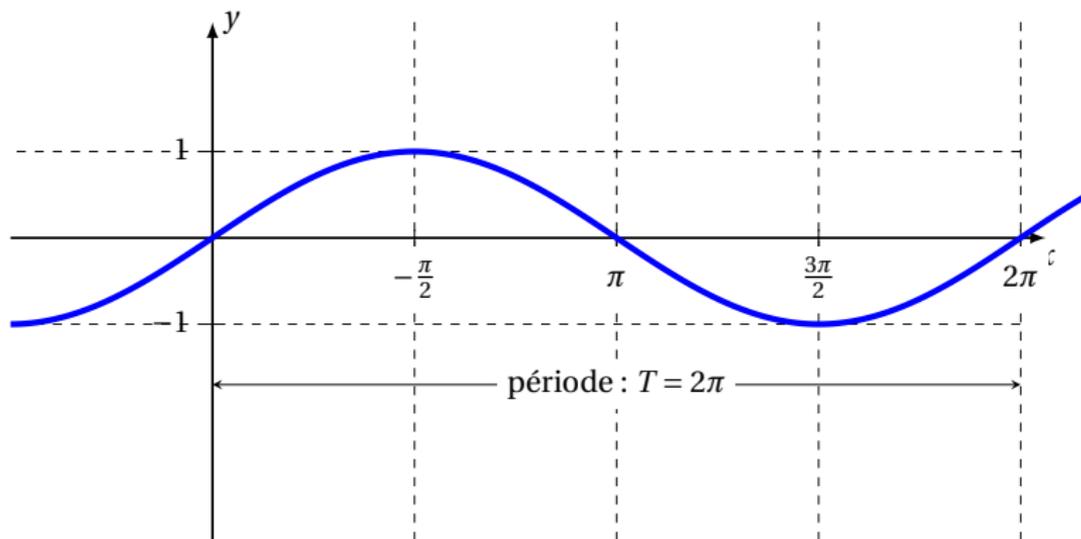


$$y = 2 \sin\left(x + \frac{\pi}{6}\right)$$



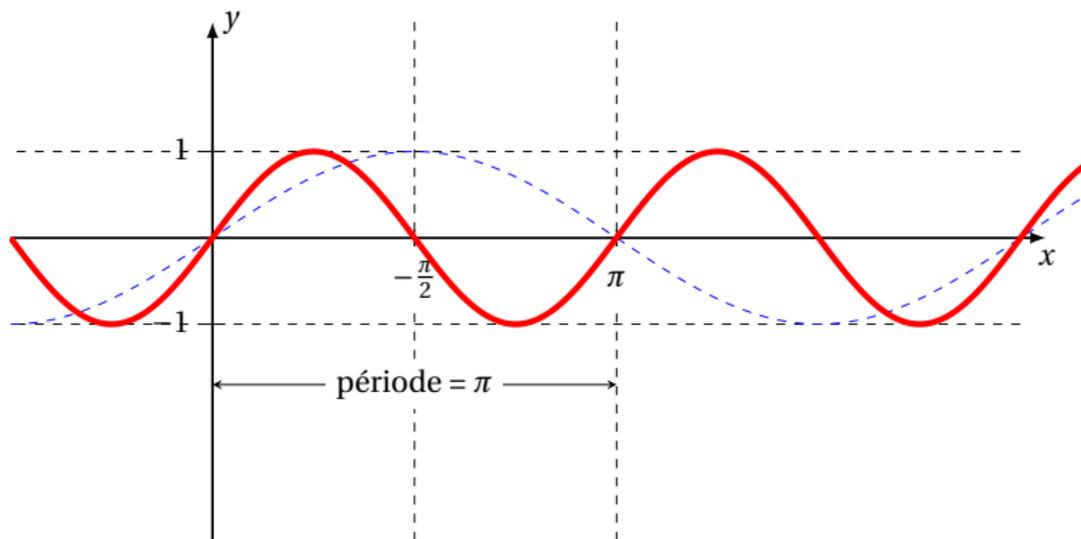
Recherche du graphe de $y = 2 \sin\left(2\left(x + \frac{\pi}{6}\right)\right) - 1$

Tracer le graphe de $y = \sin(x)$



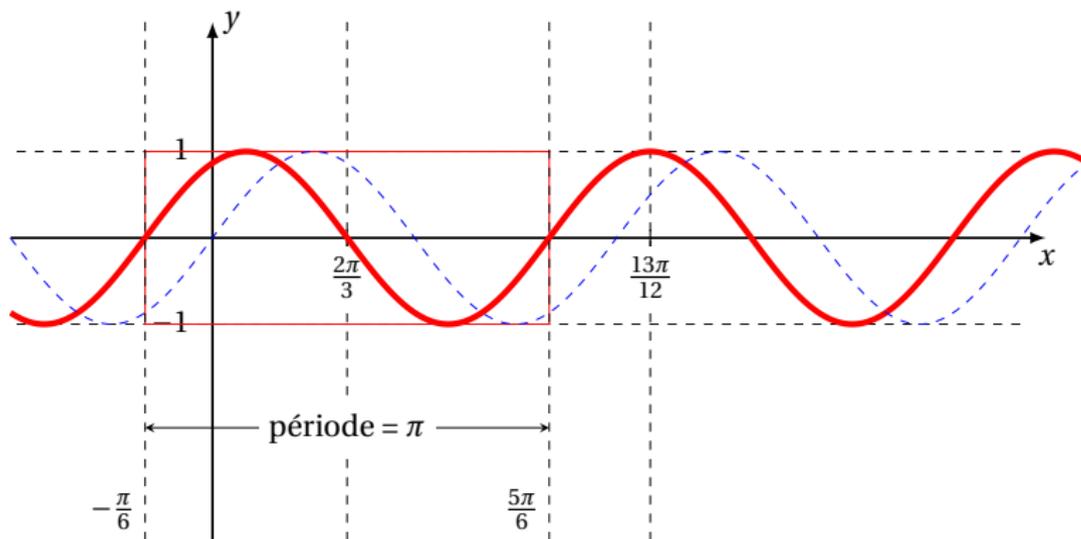
Recherche du graphe de $y = 2 \sin\left(2\left(x + \frac{\pi}{6}\right)\right) - 1$

Tracer le graphe de $y = \sin(2x)$



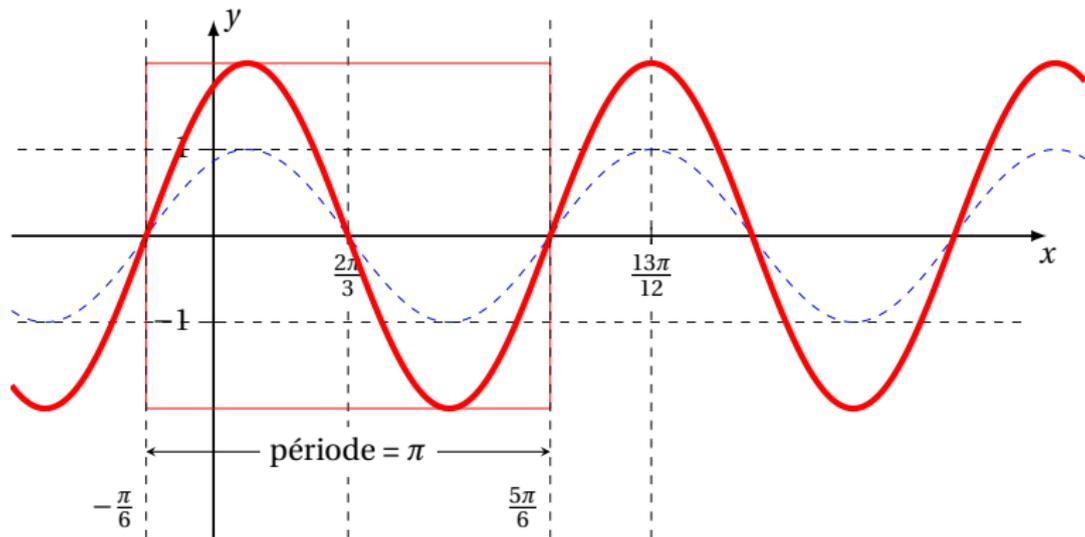
Recherche du graphe de $y = 2 \sin\left(2\left(x + \frac{\pi}{6}\right)\right) - 1$

Tracer le graphe de $y = \sin\left(2\left(x + \frac{\pi}{6}\right)\right)$



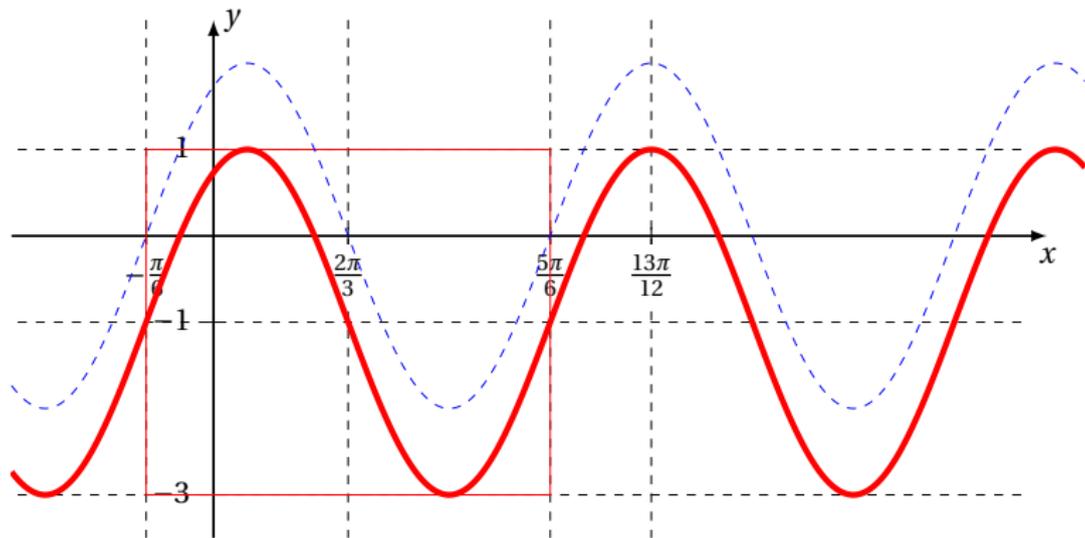
Recherche du graphe de $y = 2 \sin\left(2\left(x + \frac{\pi}{6}\right)\right) - 1$

Tracer le graphe de $y = 2 \sin\left(2\left(x + \frac{\pi}{6}\right)\right)$



Recherche du graphe de $y = 2 \sin\left(2\left(x + \frac{\pi}{6}\right)\right) - 1$

Tracer le graphe de $y = 2 \sin\left(2\left(x + \frac{\pi}{6}\right)\right) - 1$



en physique, tous les mouvements vibratoires simples, telles les ondes électromagnétiques et les cordes vibrantes, peuvent être représentés par des sinusôïdes; on les utilise aussi pour représenter les mouvements oscillatoires d'un pendule ou d'un ressort

En résumé

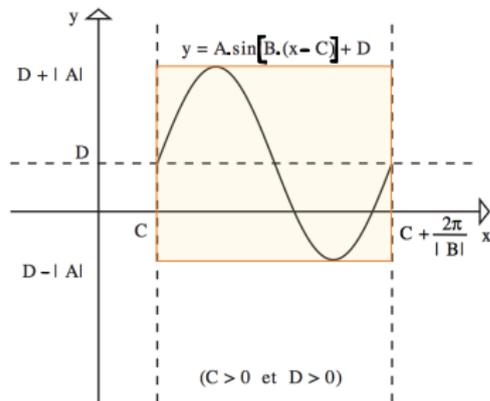
$f(x) = A \sin[B(x - C)] + D$
correspond à une fonction sinusoidale

la période est $\frac{2\pi}{|B|}$

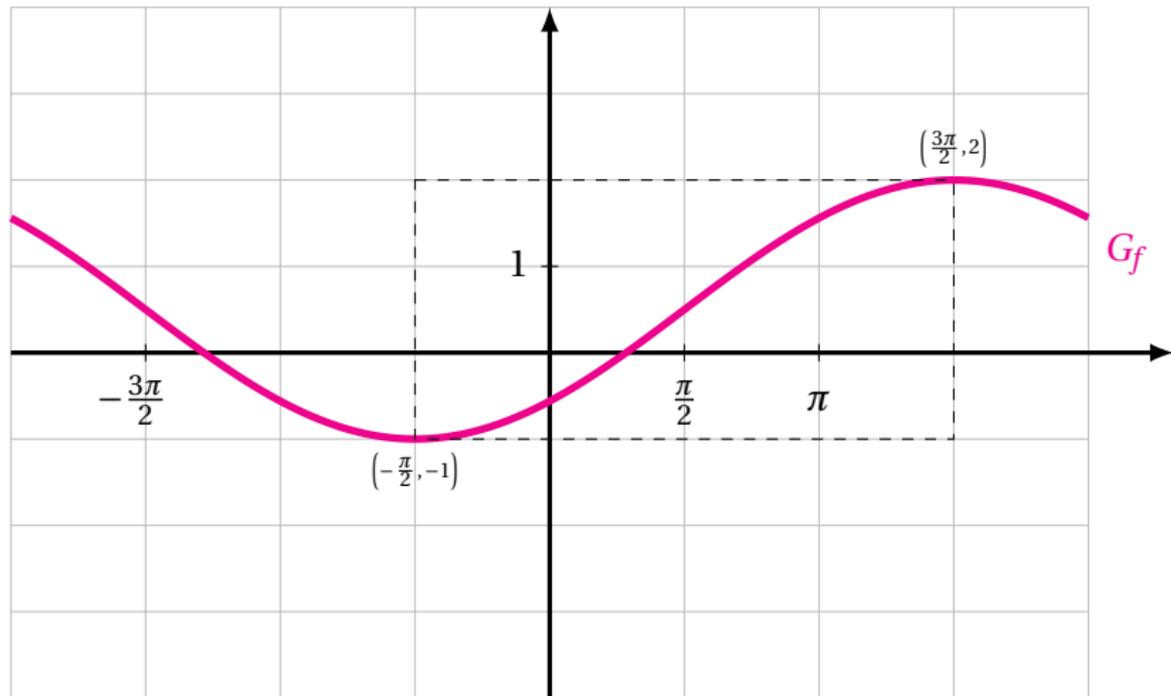
l'amplitude est $|A|$

le déphasage est C

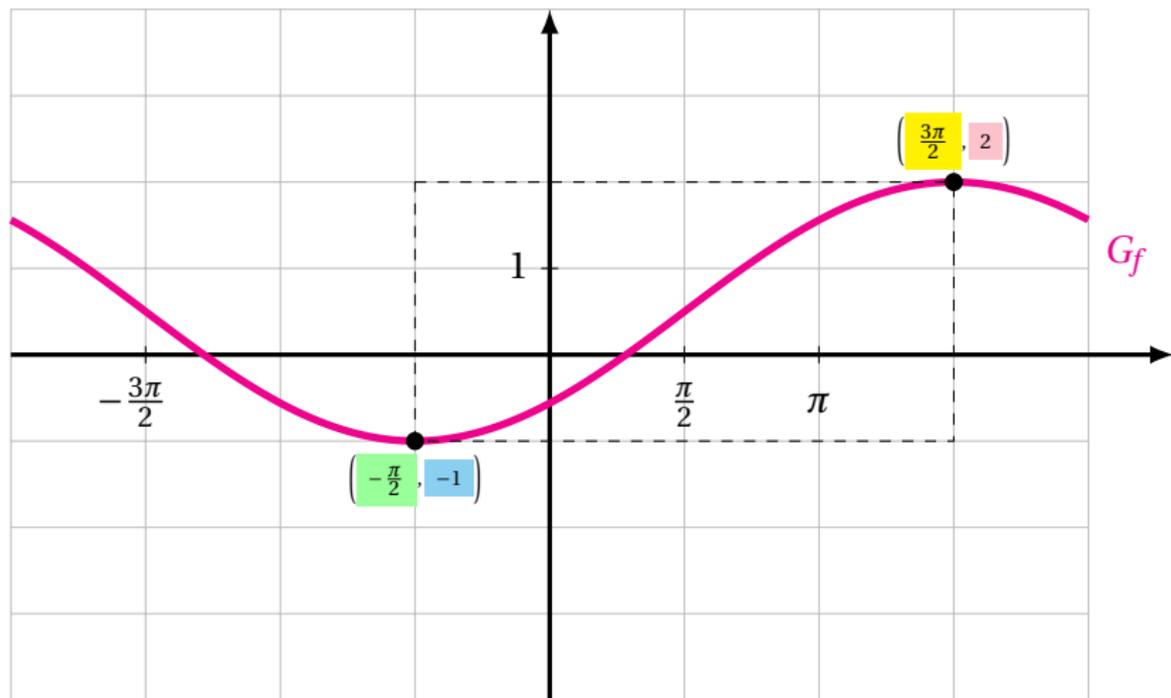
déplacement vertical de D



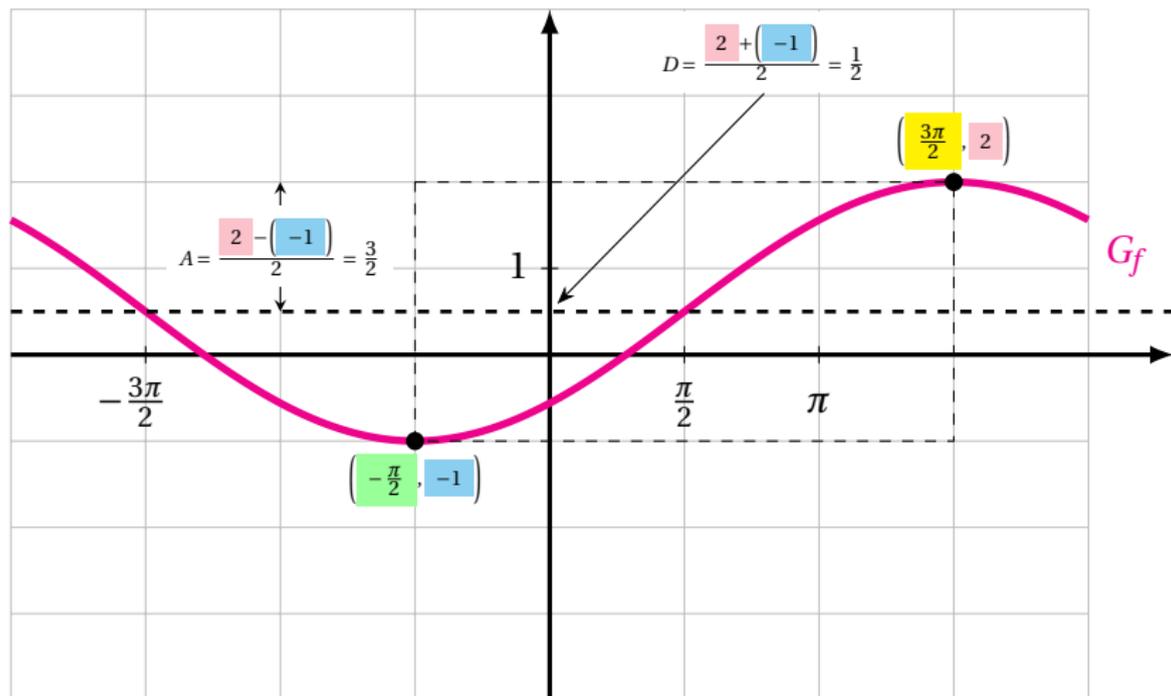
Equation à partir du graphe



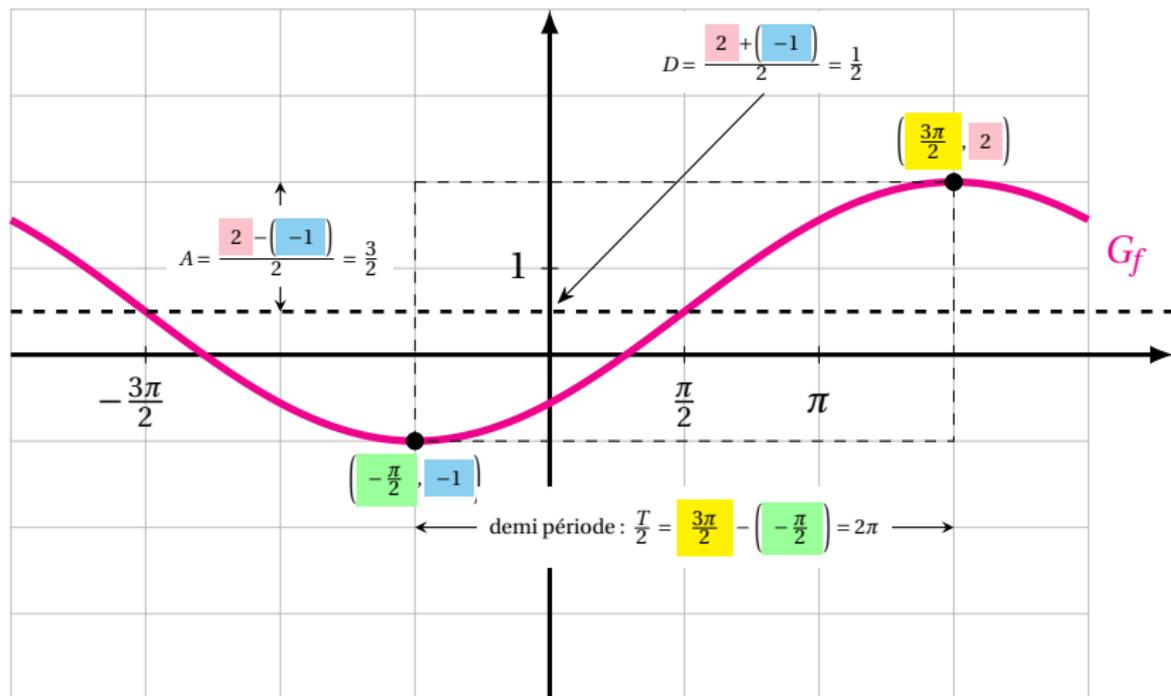
Equation à partir du graphe



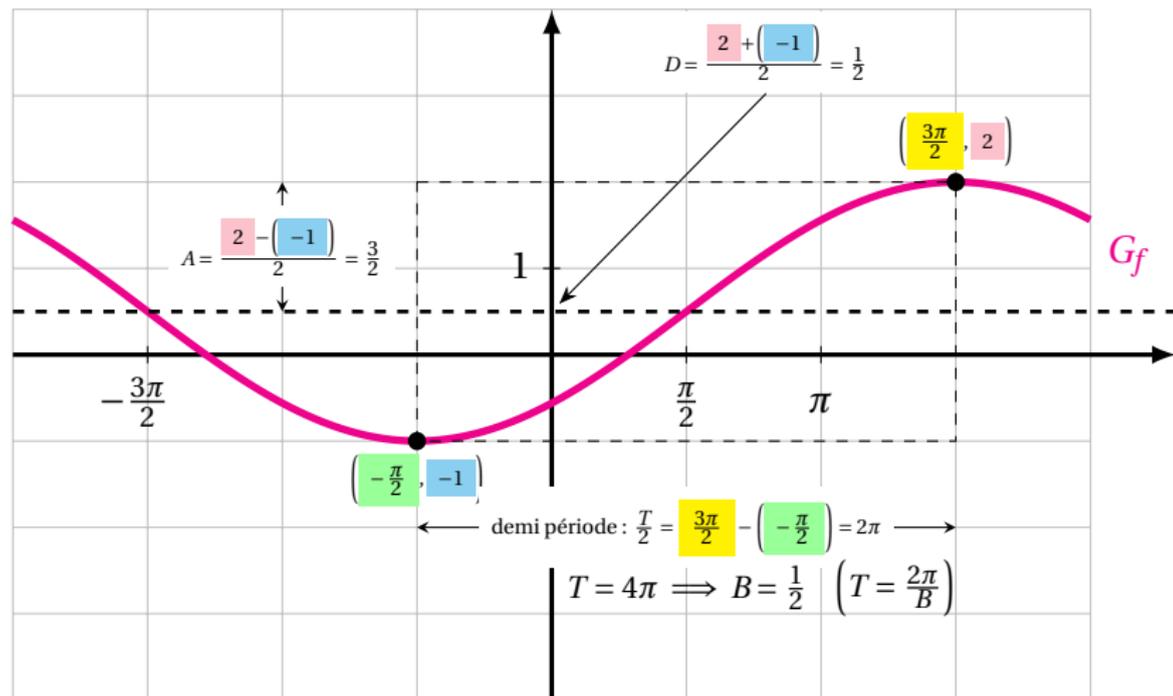
Equation à partir du graphe



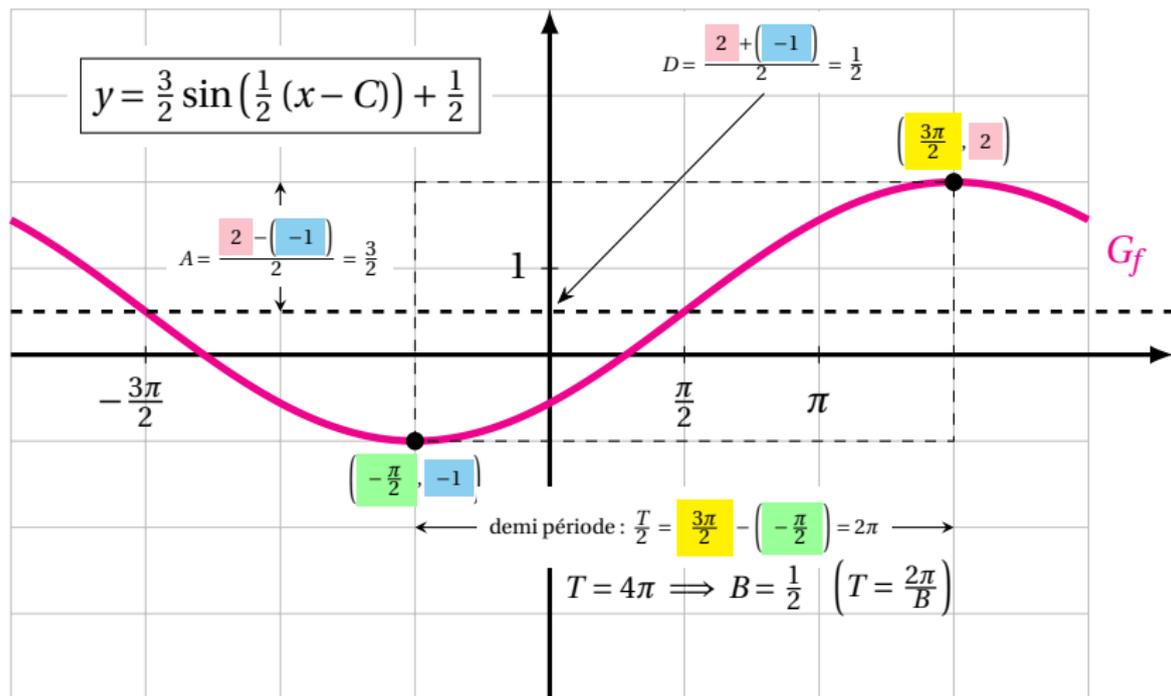
Equation à partir du graphe



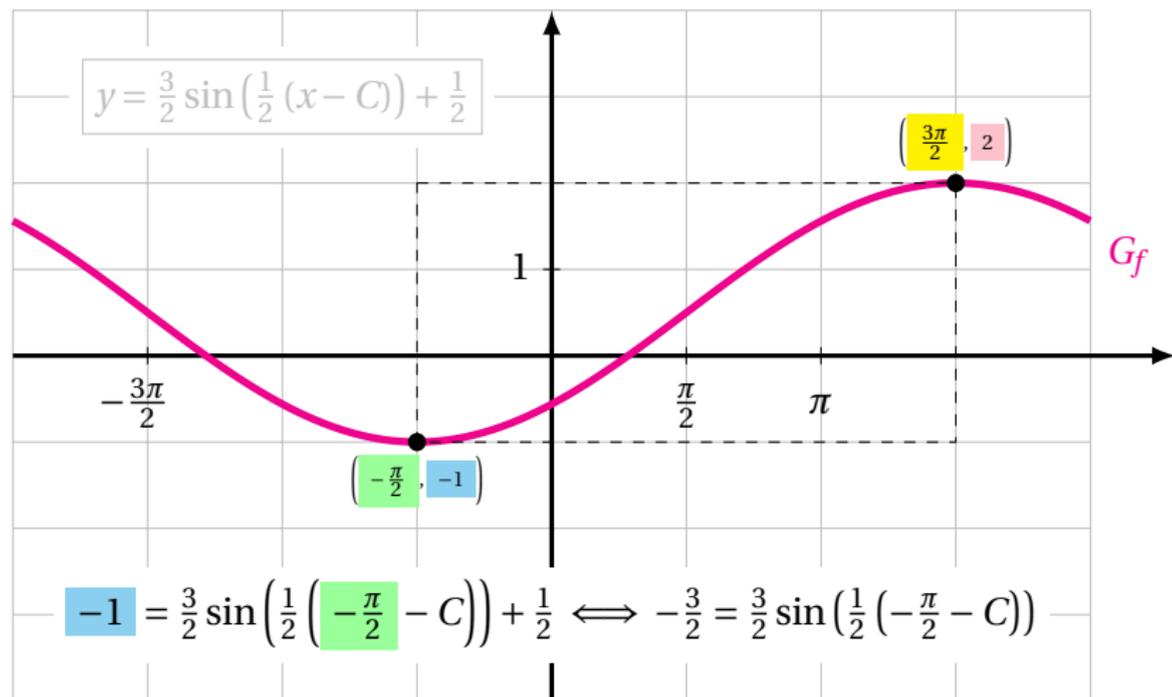
Equation à partir du graphe



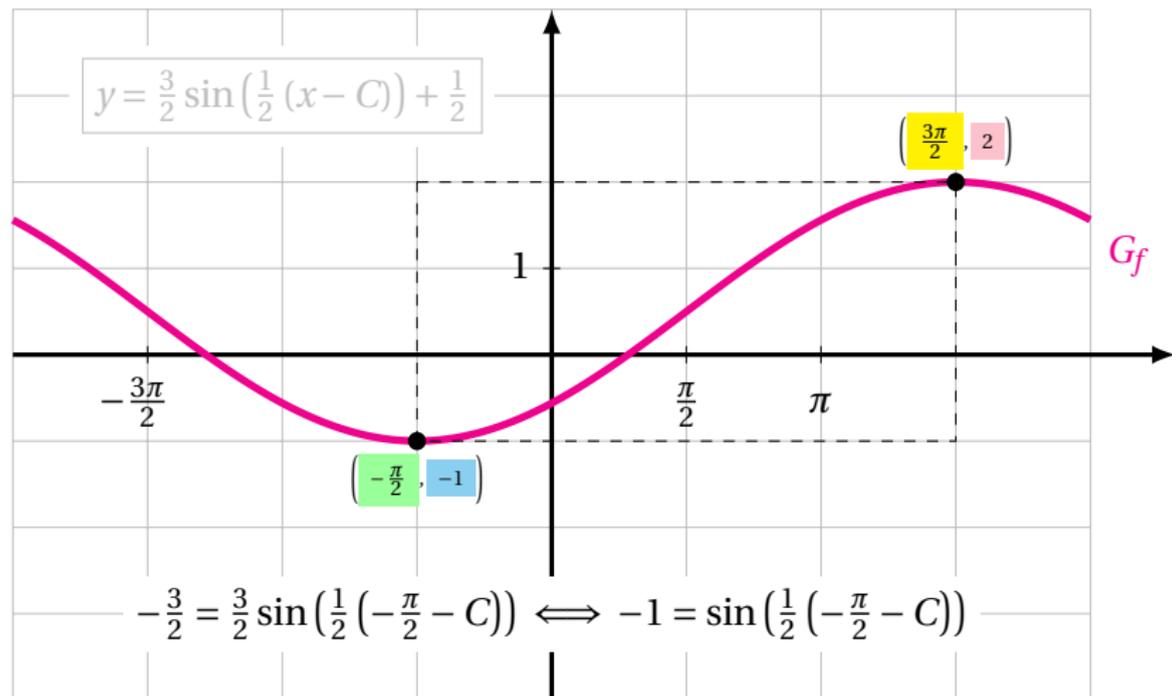
Equation à partir du graphe



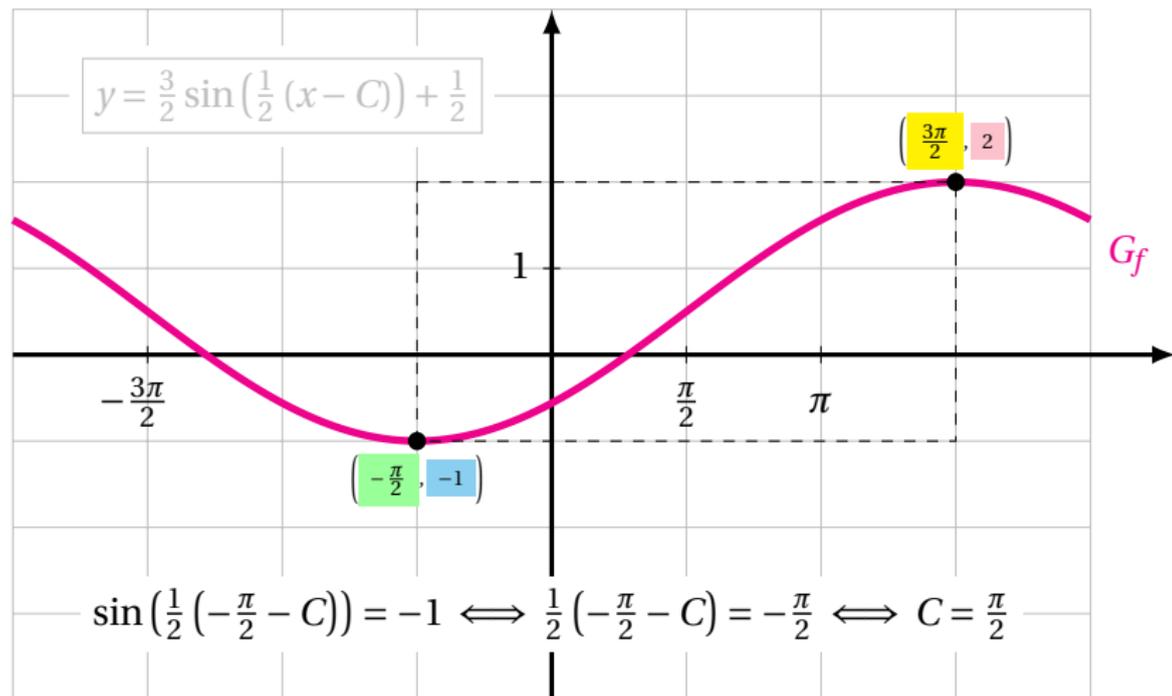
Equation à partir du graphe



Equation à partir du graphe



Equation à partir du graphe



Equation à partir du graphe

