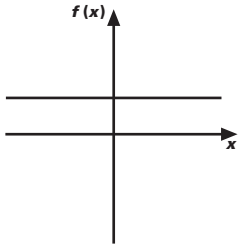
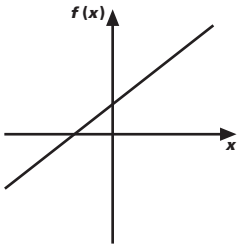
Représentation graphique de certaines fonctions

Constante



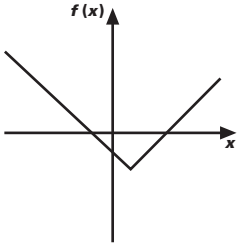
$f(x) = a$

Affine



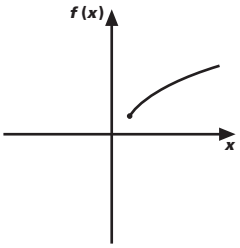
$f(x) = ax + b$

Valeur absolue



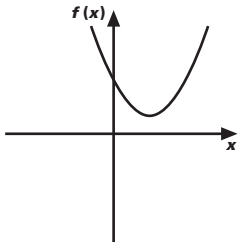
$f(x) = a\,|x - h| + k$

Racine carrée



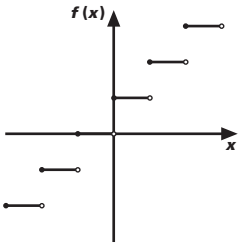
$f(x) = a\sqrt{b(x-h)} + k$

Quadratique



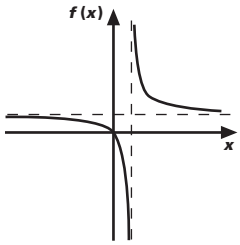
$f(x) = a\,(x-h)^2 + k$

Partie entière



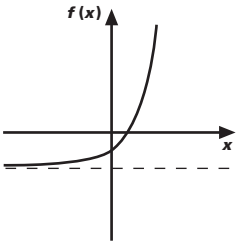
$f(x) = a\,[b\,(x-h)] + k$

Rationnelle



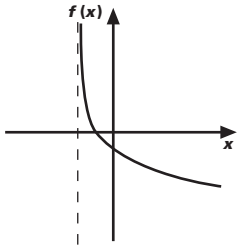
$f(x) = \dfrac{a}{b\,(x-h)} + k$

Exponentielle



$f(x) = a \cdot c^{b\,(x-h)} + k$

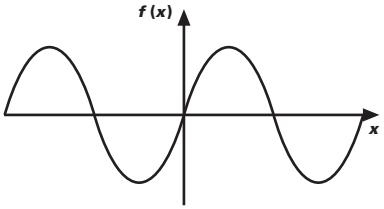
Logarithmique



$f(x) = a\ \log_c b(x-h) + k$

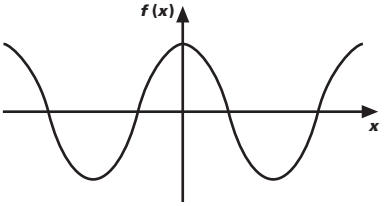
Sinusoïdales:

Sinus



$f(x) = a \sin b(x-h) + k$

Cosinus



$f(x) = a \cos b\,(x-h) + k$

Géométrie analytique

- Calcul de la distance entre deux points (x_1, y_1) et (x_2, y_2):

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

- Calcul de la distance entre un point (x_1, y_1) et une droite $y = ax + b$:

$$d = \frac{|ax_1 - y_1 + b|}{\sqrt{a^2 + 1}}$$

- Calcul du point milieu d'un segment AB dont les extrémités sont $A(x_1, y_1)$ et $B(x_2, y_2)$:

$$x = \frac{x_1 + x_2}{2} \text{ et } y = \frac{y_1 + y_2}{2}$$