

FONCTIONS DE RÉFÉRENCE

Ensemble-image et graphique

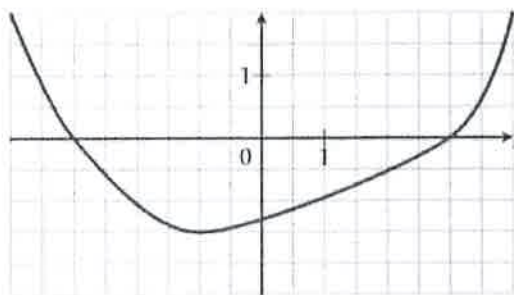
C. SCOLAS



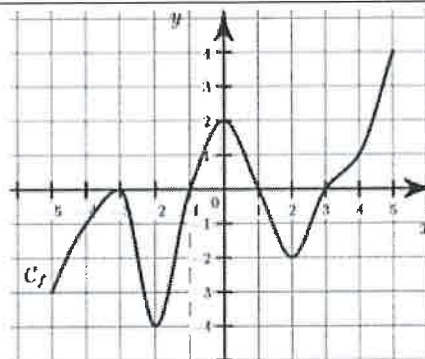
<https://bit.ly/3W4ZXWm>



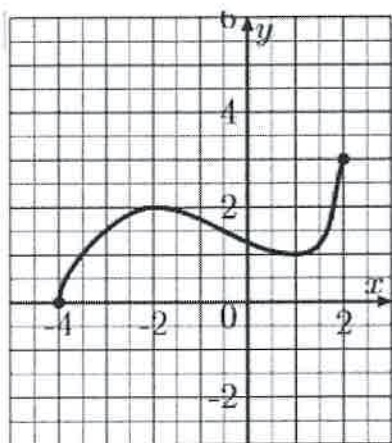
1. Détermine l'ensemble-image de chaque fonction :



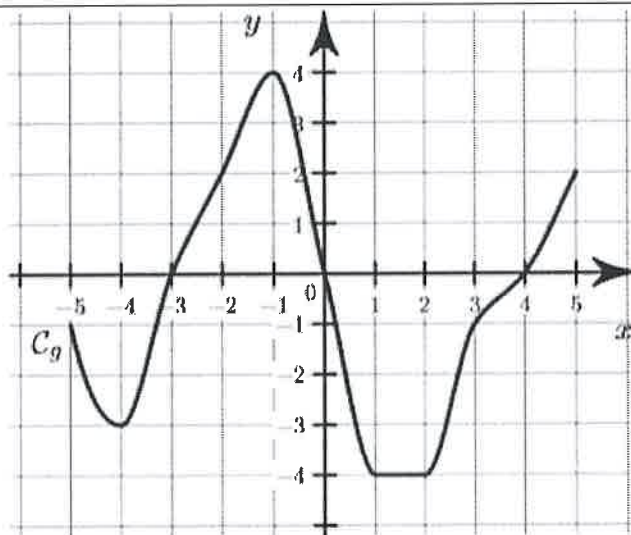
$$\text{Im } f = \left[\frac{3}{2}; +\infty\right)$$



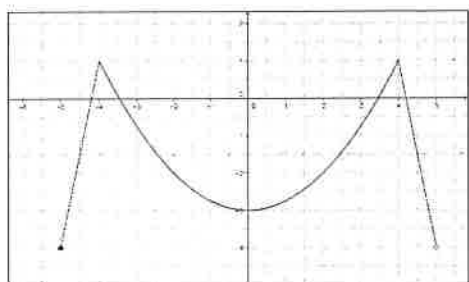
$$\text{Im } f = [-4; 4]$$



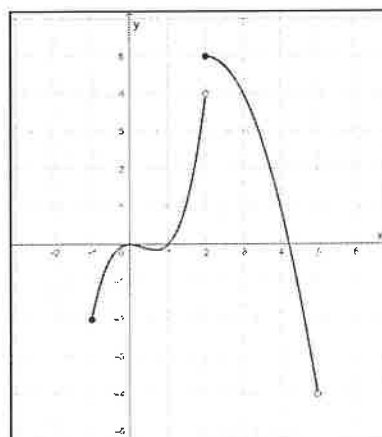
$$\text{Im } f = [0; 3]$$



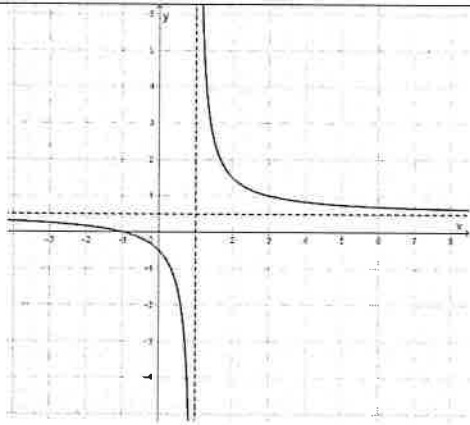
$$\text{Im } f = [-4; 4]$$



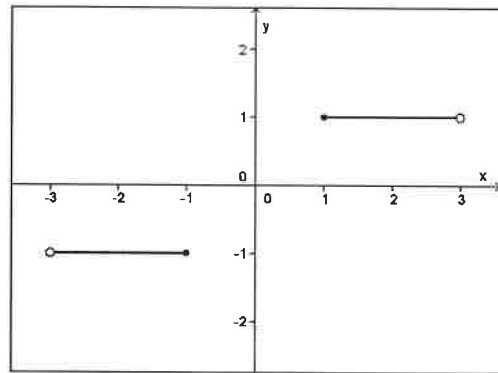
$$\text{Im } f = [-4; 1]$$



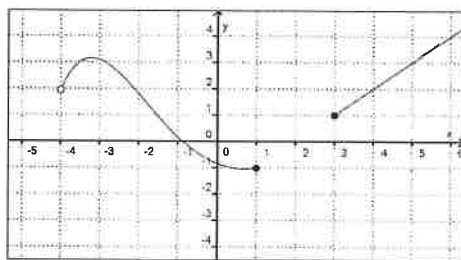
$$\text{Im } f = [-4; 5]$$



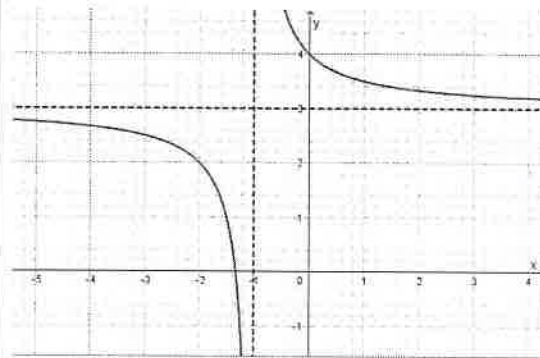
$$\text{Im } f = \mathbb{R} \setminus \left\{ \frac{1}{2} \right\}$$



$$\text{Im } f = \{-1; 1\}$$



$$\text{Im } f = [-1; \rightarrow]$$



$$\text{Im } f = \mathbb{R} \setminus \{3\}$$

2. Le point $A\left(2; \frac{1}{4}\right)$ appartient-il au graphique de la fonction $f(x) = \frac{1}{x^2 + 1}$? Justifie ta réponse.

$$\text{Non car } f(2) = \frac{1}{2^2 + 1} = \frac{1}{5} \neq \frac{1}{4}$$

3. Donne les coordonnées d'un point P appartenant au graphique de la fonction $f(x) = x^2 + 2x - 5$.

$$\text{Si } x = 2, f(2) = 2^2 + 2 \cdot 2 - 5 = 3 \quad \rightarrow P(2; 3)$$