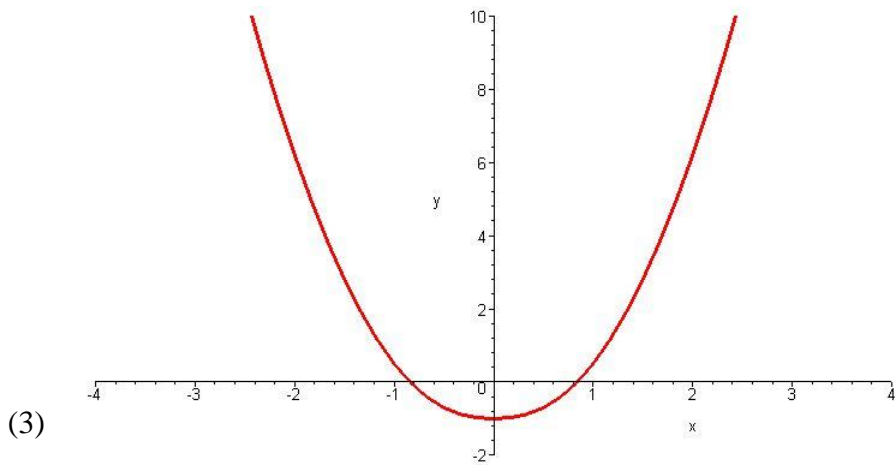
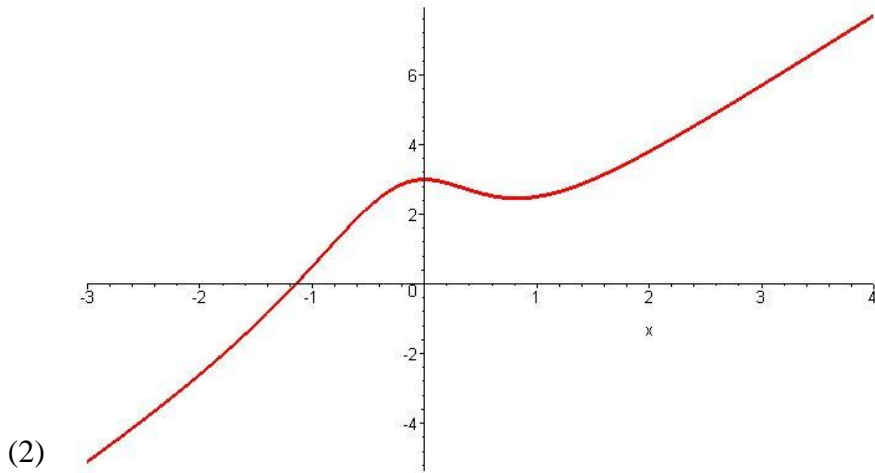
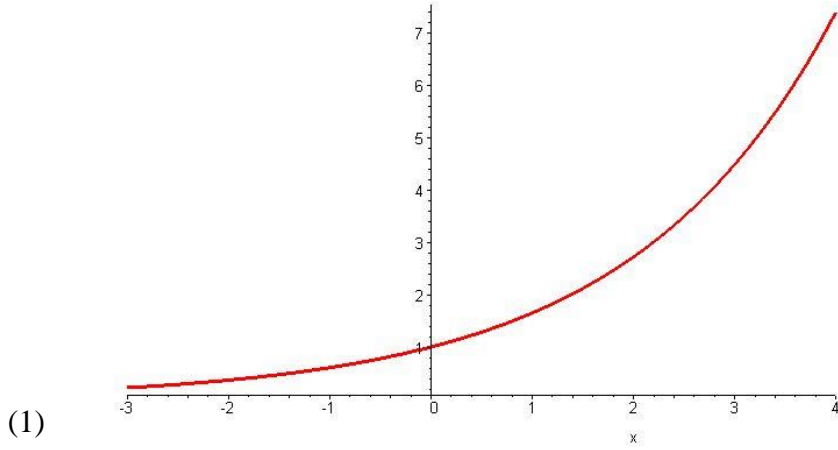
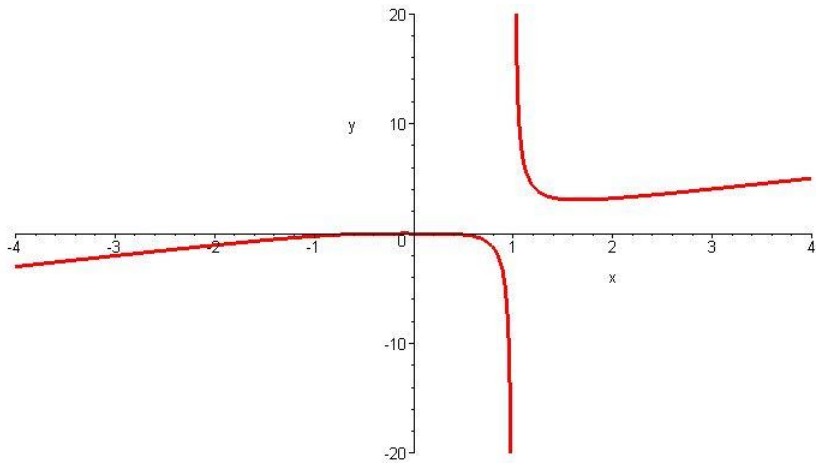


有理函數之繪圖

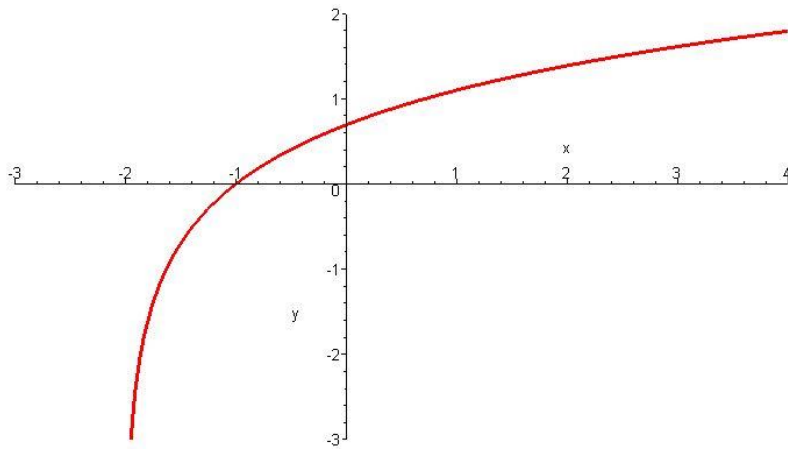
1. 以下哪一幅圖不可能是有理函數的圖形？



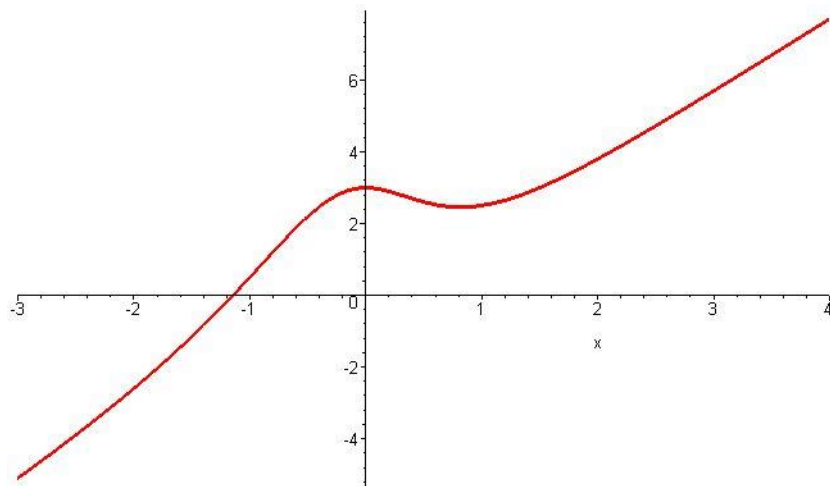


(4)

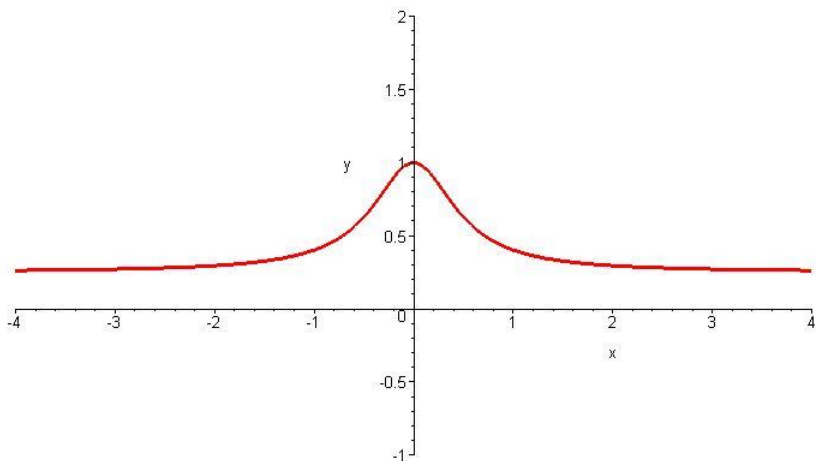
2. 以下哪一幅圖可能是有理函數 $f(x) = \frac{x^2 + 1}{4x^2 + 1}$ 的圖形？



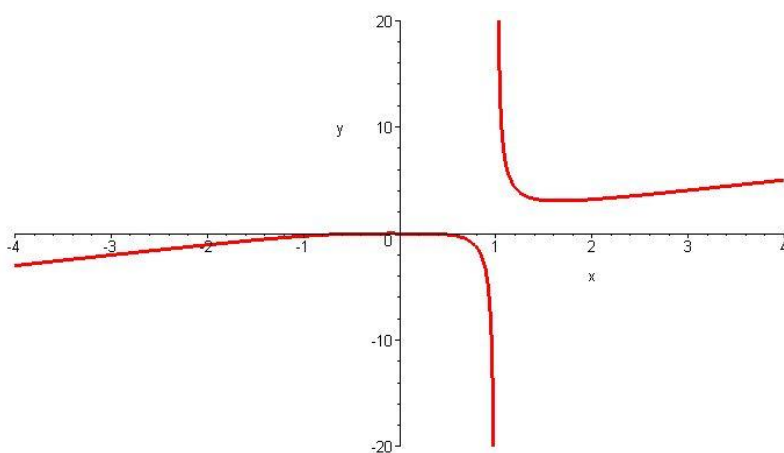
(1)



(2)



(3)



(4)

3. 以下哪個有理函數的圖形，沒有任何（直的）漸近線？

(1) $f(x) = \frac{2x^3 + 3}{x^2 + 1}$

(2) $f(x) = \frac{2x^4 - 1}{x^2 + 1}$

(3) $f(x) = \frac{x^2 + 1}{4x^2 + 1}$

(4) $f(x) = \frac{x + 1}{2x^2 - 1}$

4. 以下哪個有理函數的圖形，同時擁有鉛直和水平漸近線？

(1) $f(x) = \frac{x^2 + 3}{2x^2 - x}$

(2) $f(x) = \frac{2x^2 - 1}{x^2 + 4}$

(3) $f(x) = \frac{x^3 - 2}{4x^2 + x}$

(4) 以上皆非

5. 以下哪個有理函數的圖形，同時擁有水平和斜漸近線？

(1) $f(x) = \frac{2x^3 - x^2 + 1}{x^2 + 1}$

(2) $f(x) = \frac{3x^2 - 1}{2x^2 + x + 1}$

(3) $f(x) = \frac{x^2 - 5x + 4}{4x^3 + 2x}$

(4) 以上皆非