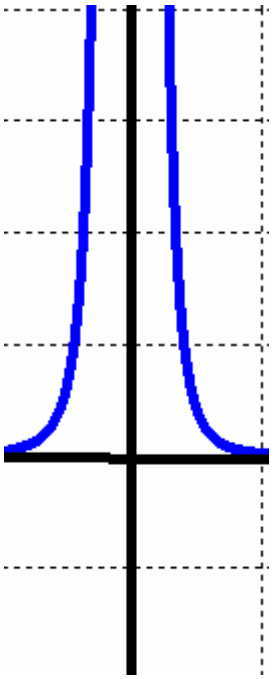
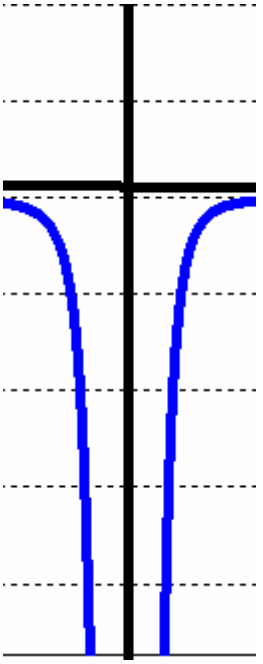
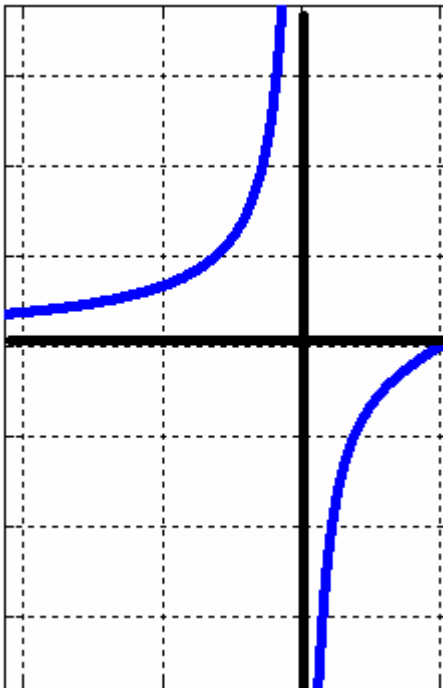
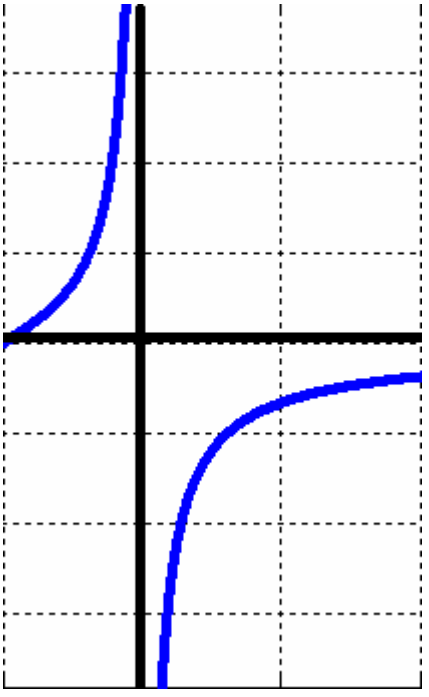
Even Exponents : (same infinity)

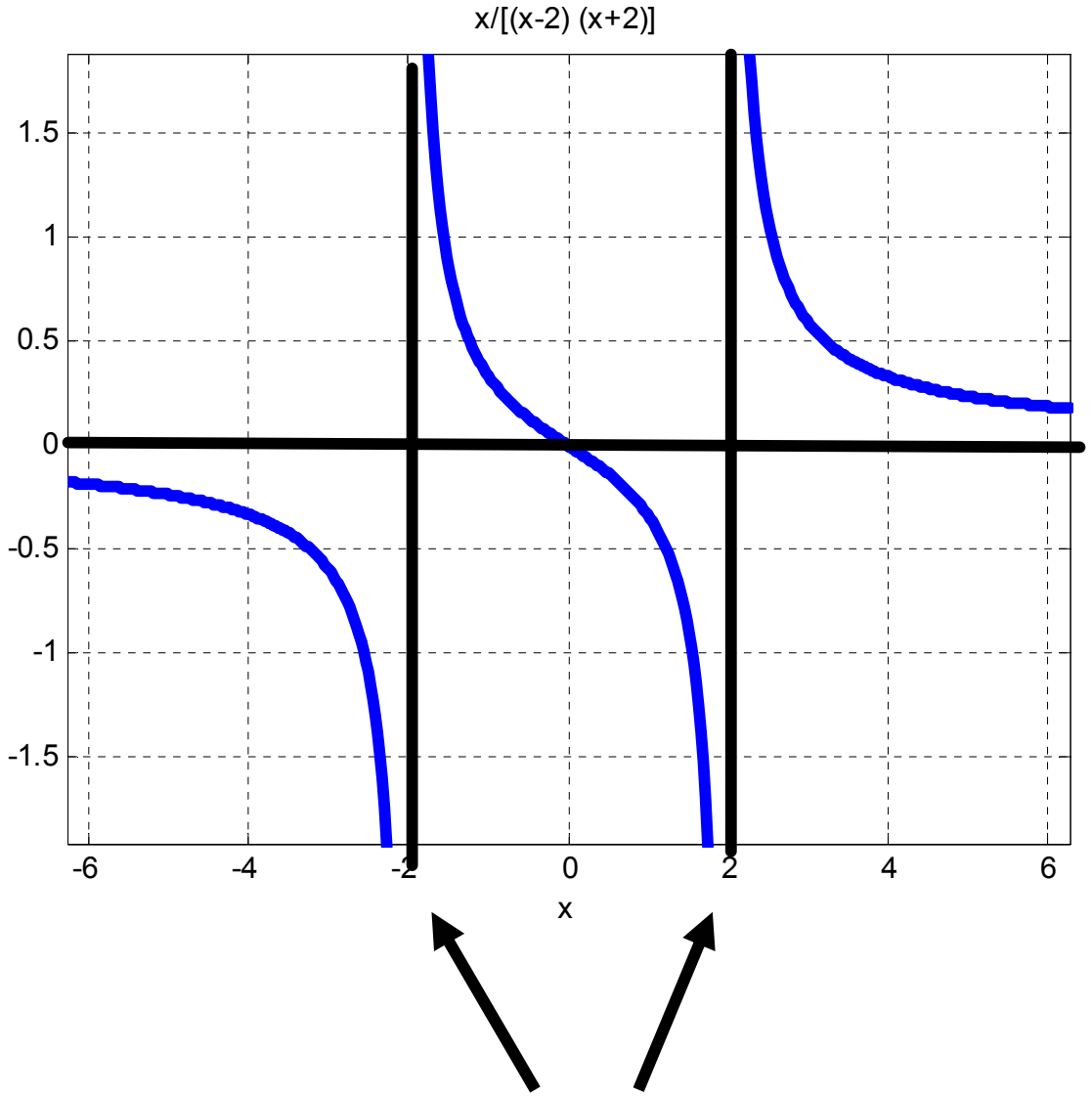




Odd Exponents : (different infinity)

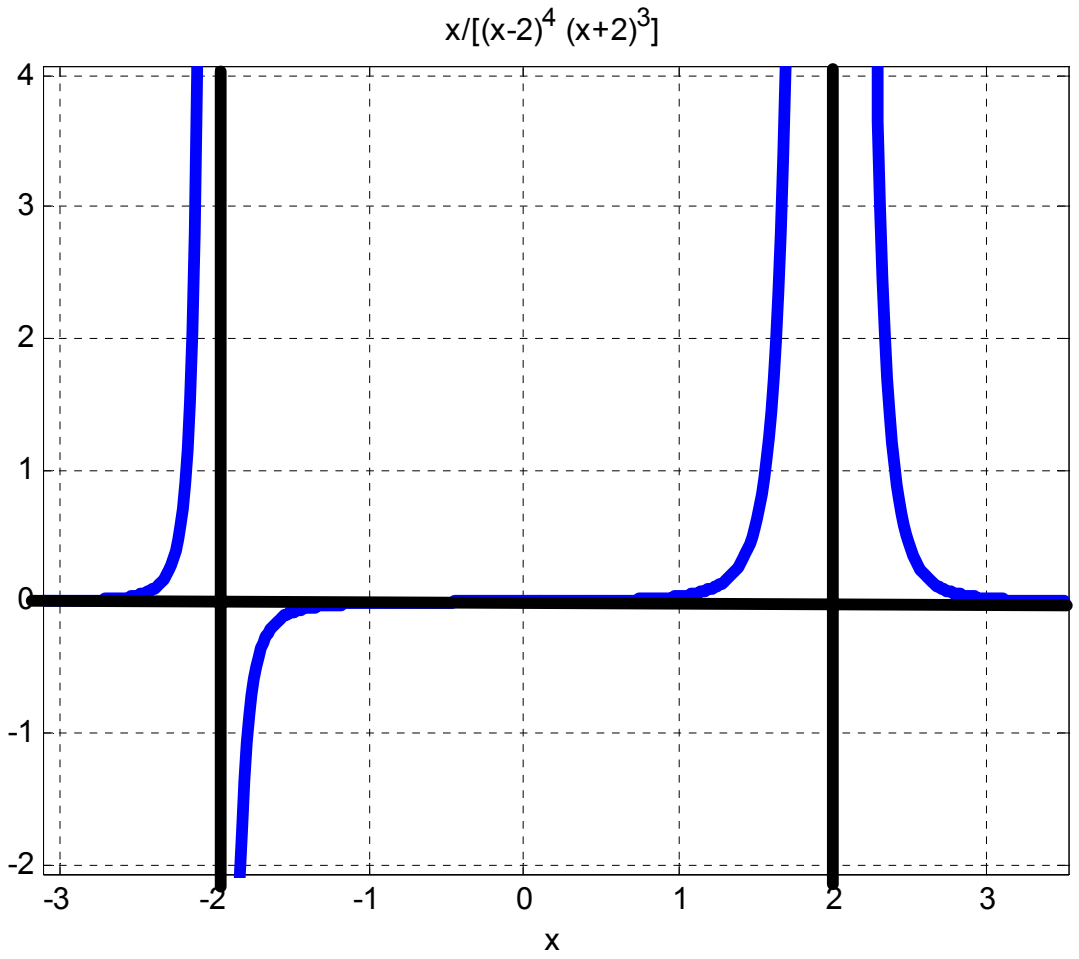






odd

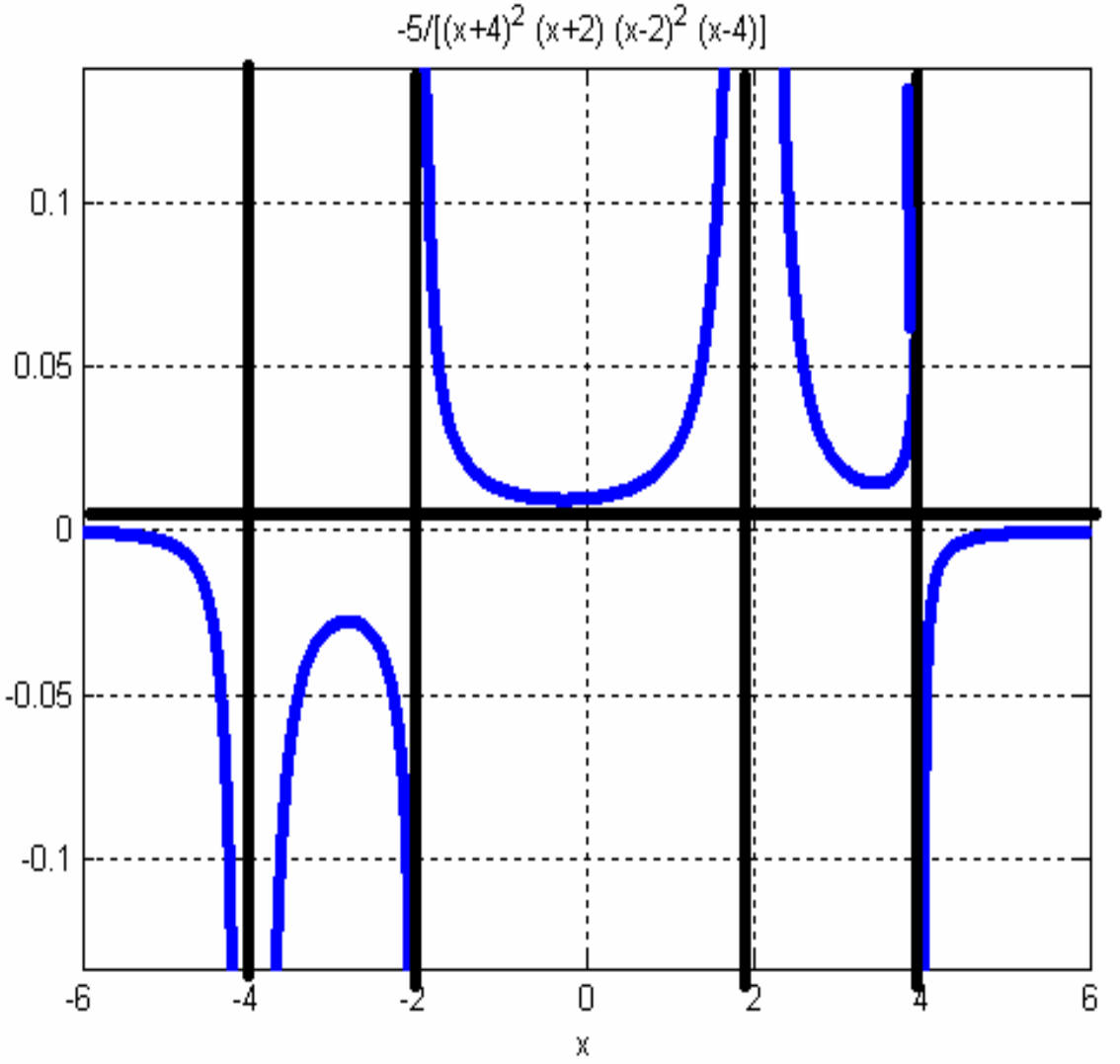
$$f(x) = \frac{x}{(x-2)^3(x+2)^5}$$



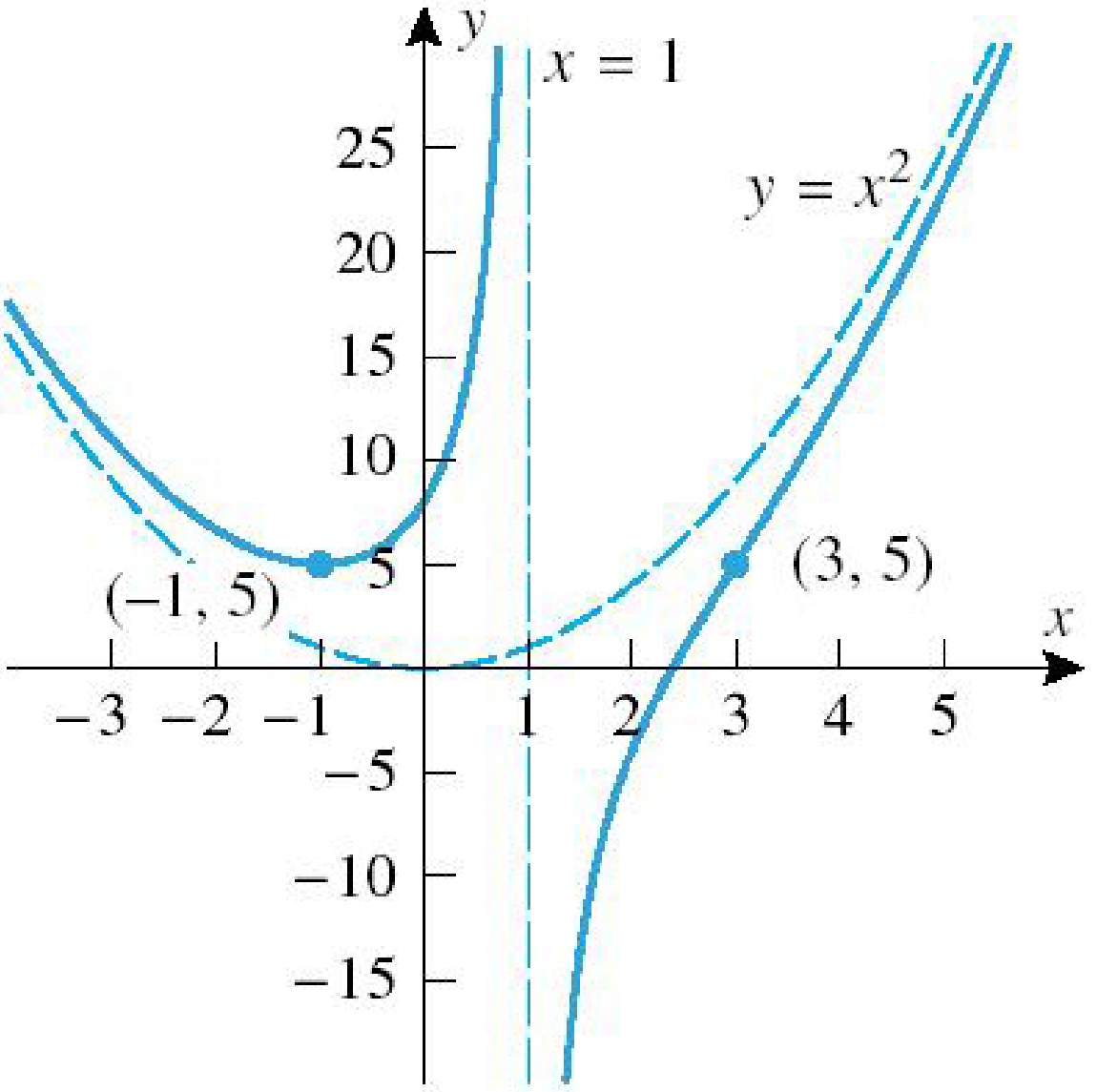
odd

Even

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



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



$$y = \frac{x^3 - x^2 - 8}{x - 1}$$

$$\lim_{x \to +\infty} f(x) = x^2 \qquad \lim_{x \to -\infty} f(x) = x^2$$