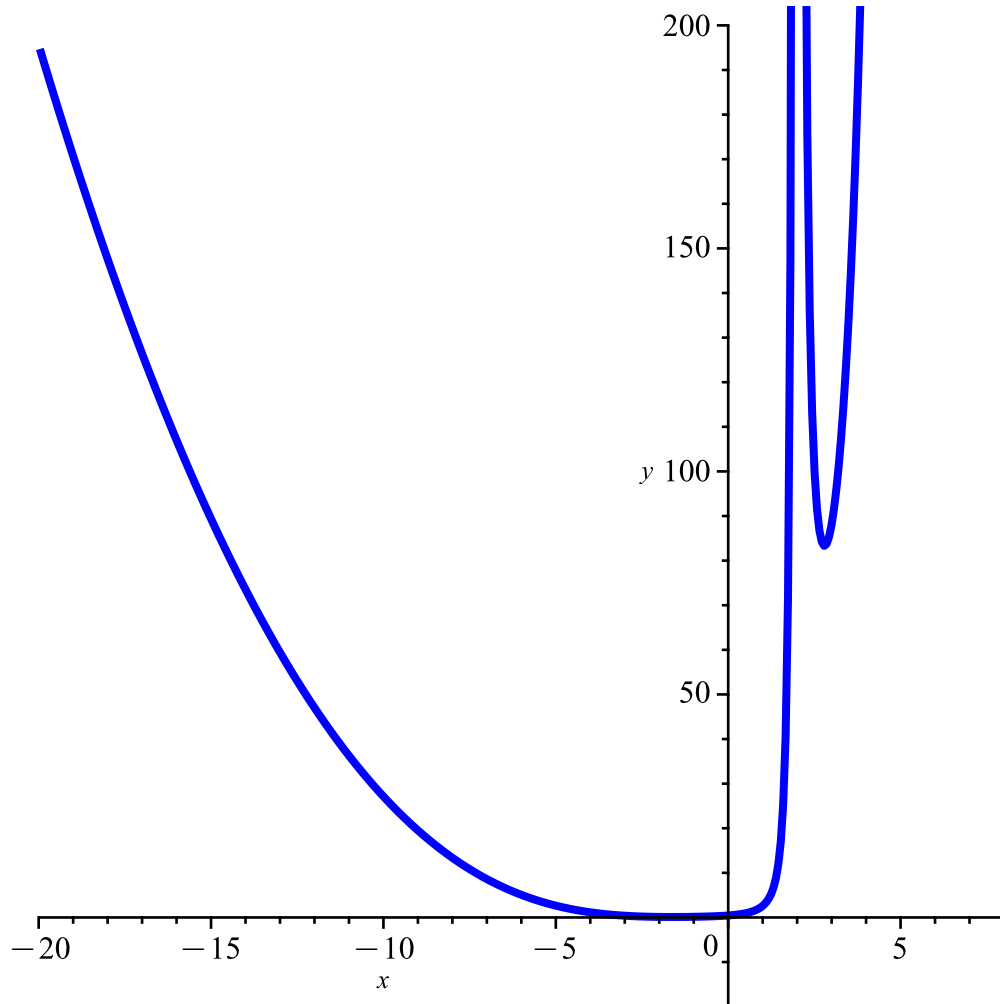


$$f := x \rightarrow \frac{(x^6 + 64)}{(x - 2)^2 \cdot (x - 6)^2} = x \rightarrow \frac{x^6 + 64}{(x - 2)^2 (x - 6)^2}$$

with(*plots*) :

fplot := *plot*(*f*(*x*), *x* = -20 .. 8, *y* = -20 .. 200, *discont* = true, *thickness* = 3, *color* = blue)



p := *x* → *numer*(*f*(*x*))

p := *x* ↦ *numer*(*f*(*x*))

(1)

p(*x*)

$$x^6 + 64$$

(2)

q := *x* → *denom*(*f*(*x*))

q := *x* ↦ *denom*(*f*(*x*))

(3)

q(*x*)

$$(x - 2)^2 (x - 6)^2$$

(4)

slantas := *x* → *quo*(*p*(*x*), *q*(*x*), *x*)

slantas := *x* ↦ *quo*(*p*(*x*), *q*(*x*), *x*)

(5)

slantas(*x*)

$$x^2 + 16x + 168$$

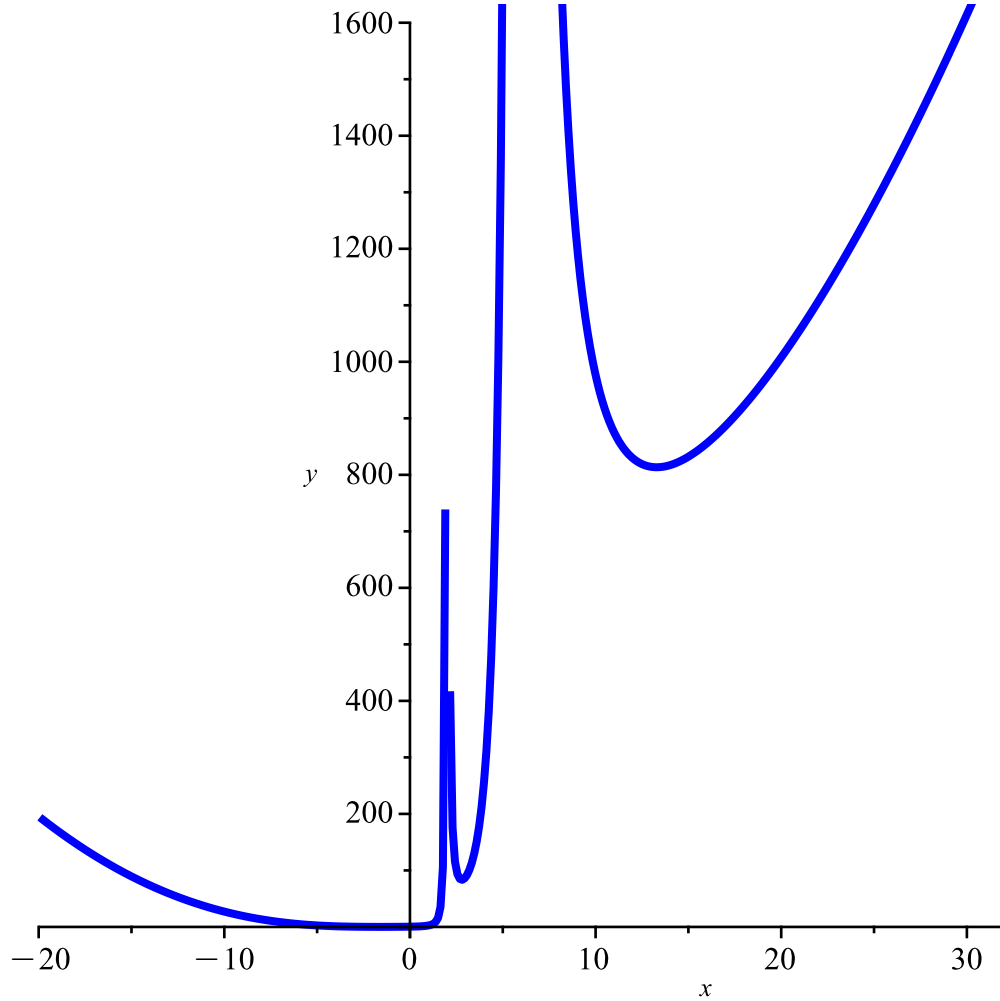
(6)

f(*x*)

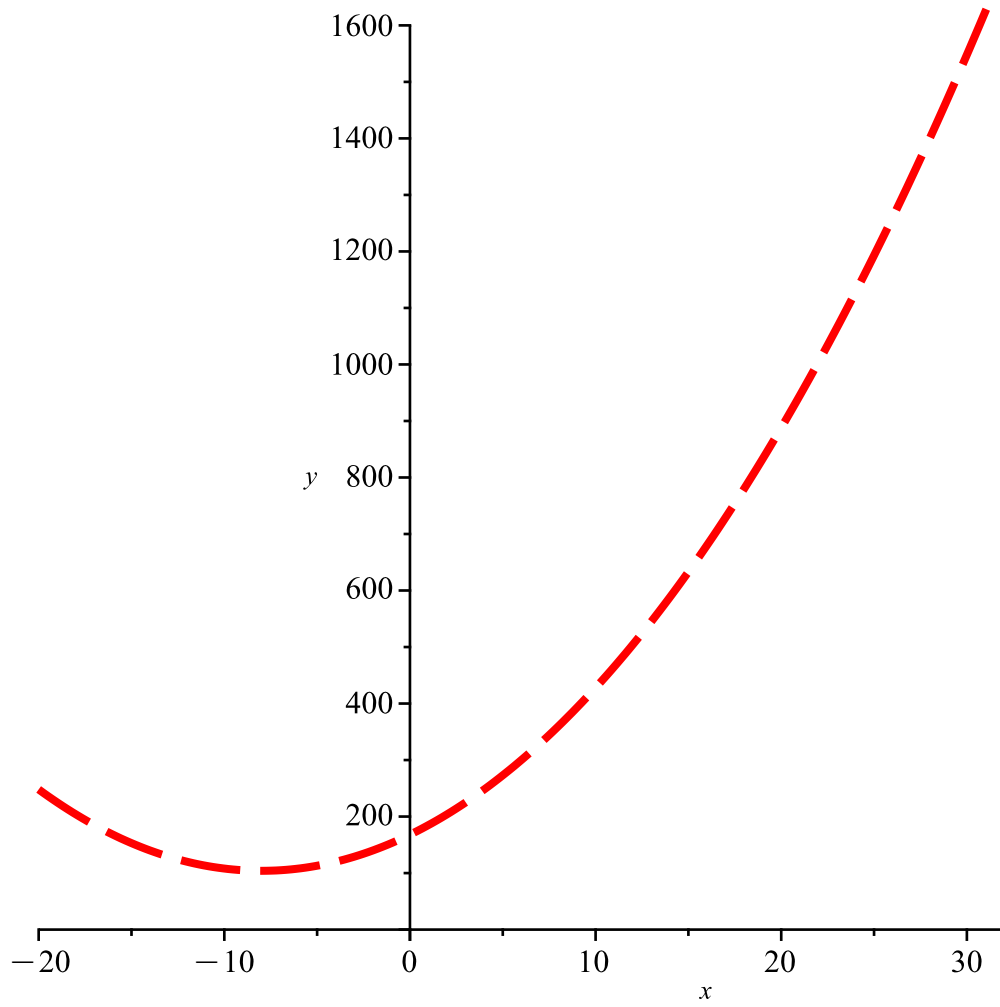
(7)

$$\frac{x^6 + 64}{(x - 2)^2 (x - 6)^2}$$

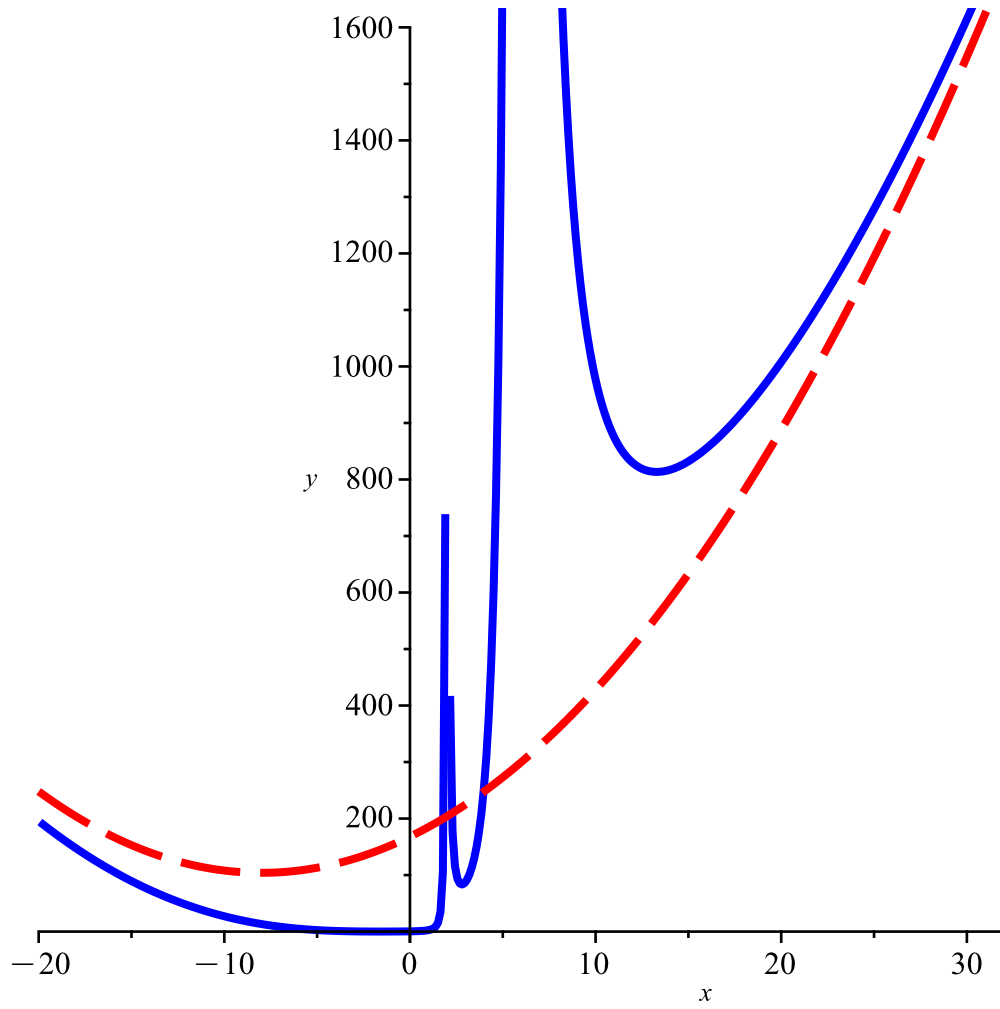
*fplot := plot(f(x), x = -20 .. 32, y = -20 .. 1600, *discont = true, thickness = 3, color = blue*)*



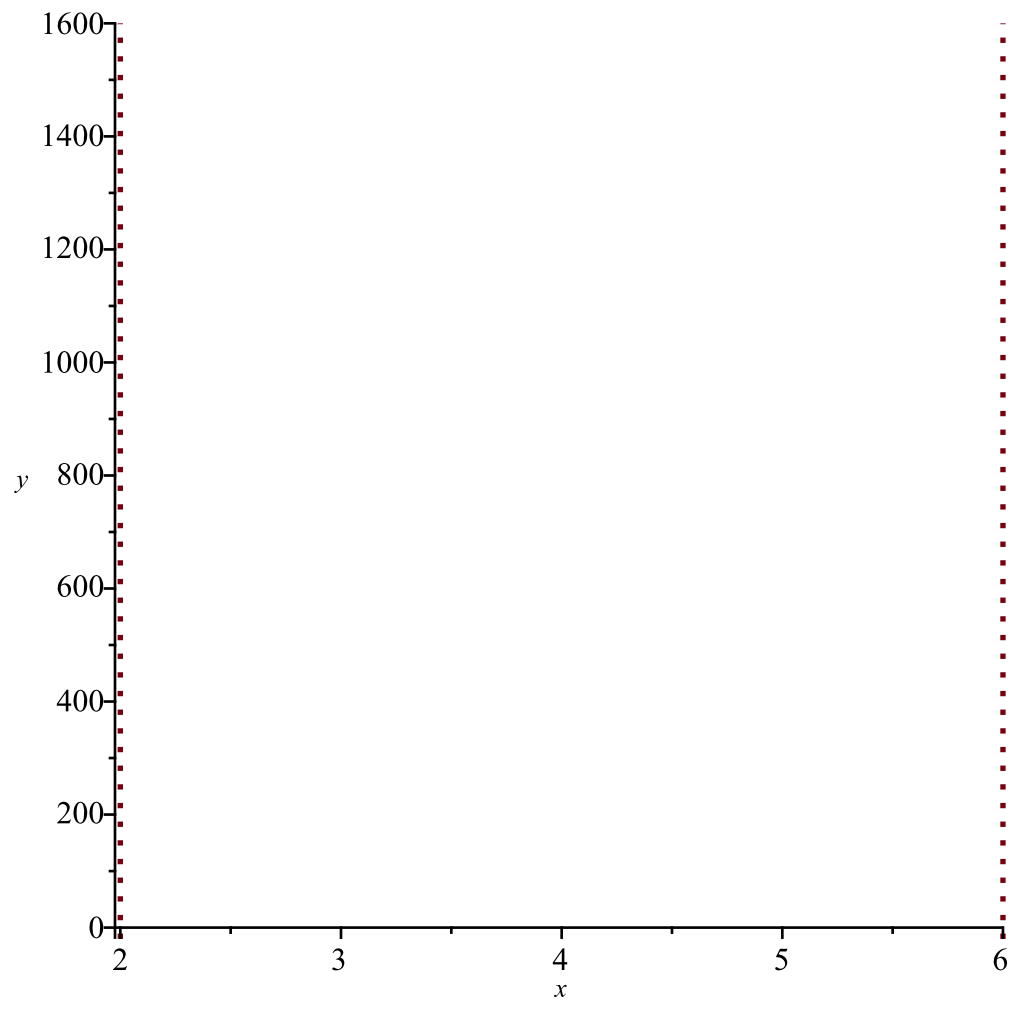
*slantasplot := plot(slantas(x), x = -20 .. 32, y = -20 .. 1600, *discont = true, thickness = 3, linestyle = dash, color = red*)*



`display([fplot, slantasplot])`



with(plots) :
vertasplot := implicitplot([x = 2, x = 6], x = -2 .. 7, y = -20 .. 1600, linestyle = dot, thickness = 2)



display([fplot, slantasplot, vertasplot])

