

Solve these problems

$$\ln x + \ln 4 = 1$$

$$\log_e x + \log_e 4 = 1$$

$$\log_e 4x = 1$$

$$\frac{e^1}{4} = \frac{4x}{4}$$

$$\ln e^0 = ?$$

$$\log_e e^0 = ?$$

$$\log_e 1 = ?$$

$$e^0 = 1$$

$$e^{\ln x^3} = 27$$

$$\log_e 27 = \ln x^3$$

$$\log_e 27 = \log_e x^3$$

$$x = 3$$

- Horiz. & Vert asymptotes
- Zeros (real & extraneous)?

$x = -2$  zero

$x = 2$  extraneous zero

$$y = 0$$

$p < q$

$$x = 0$$

$$x = 1$$

vert. asympt.

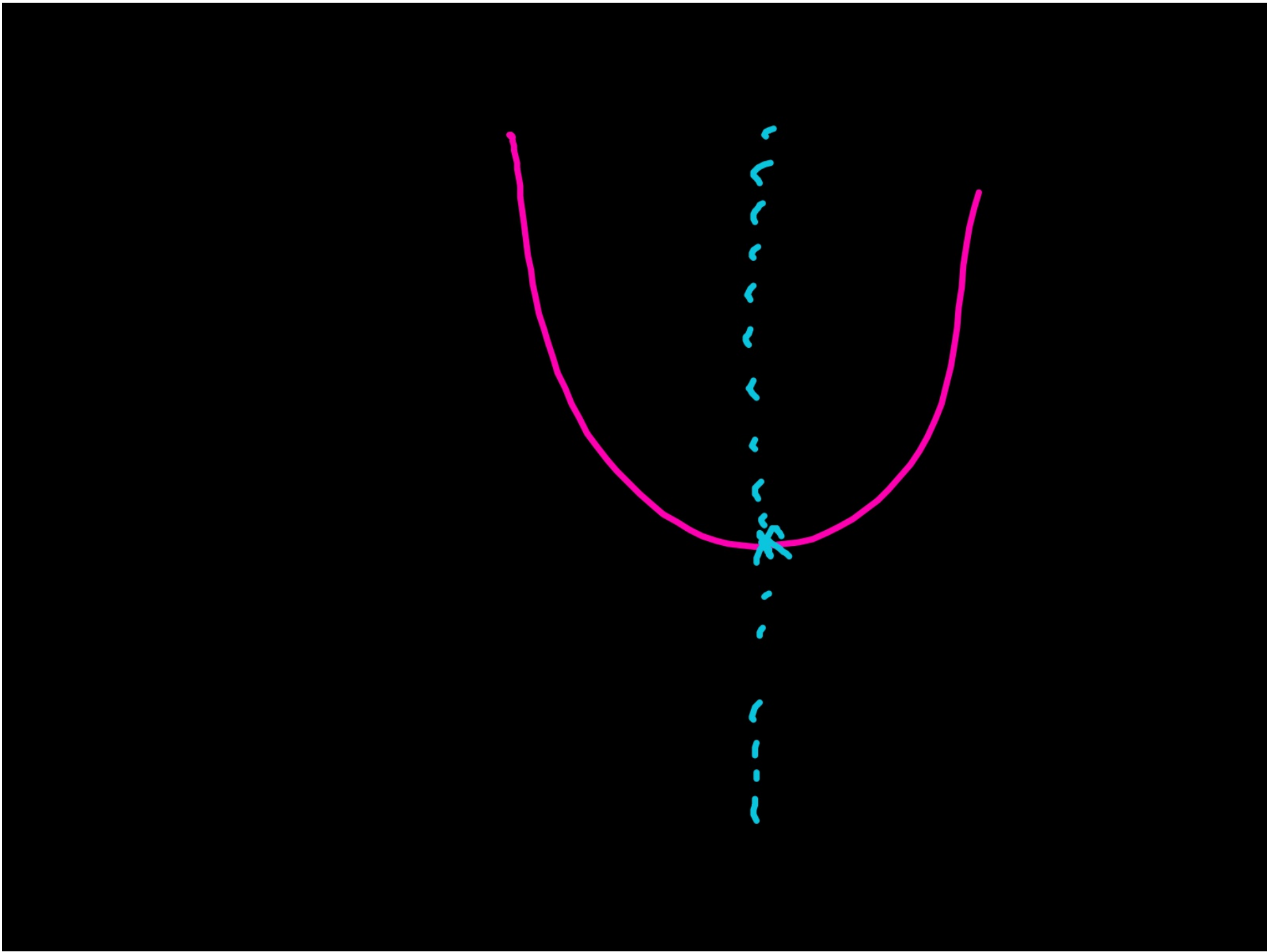
$$f(x) =$$

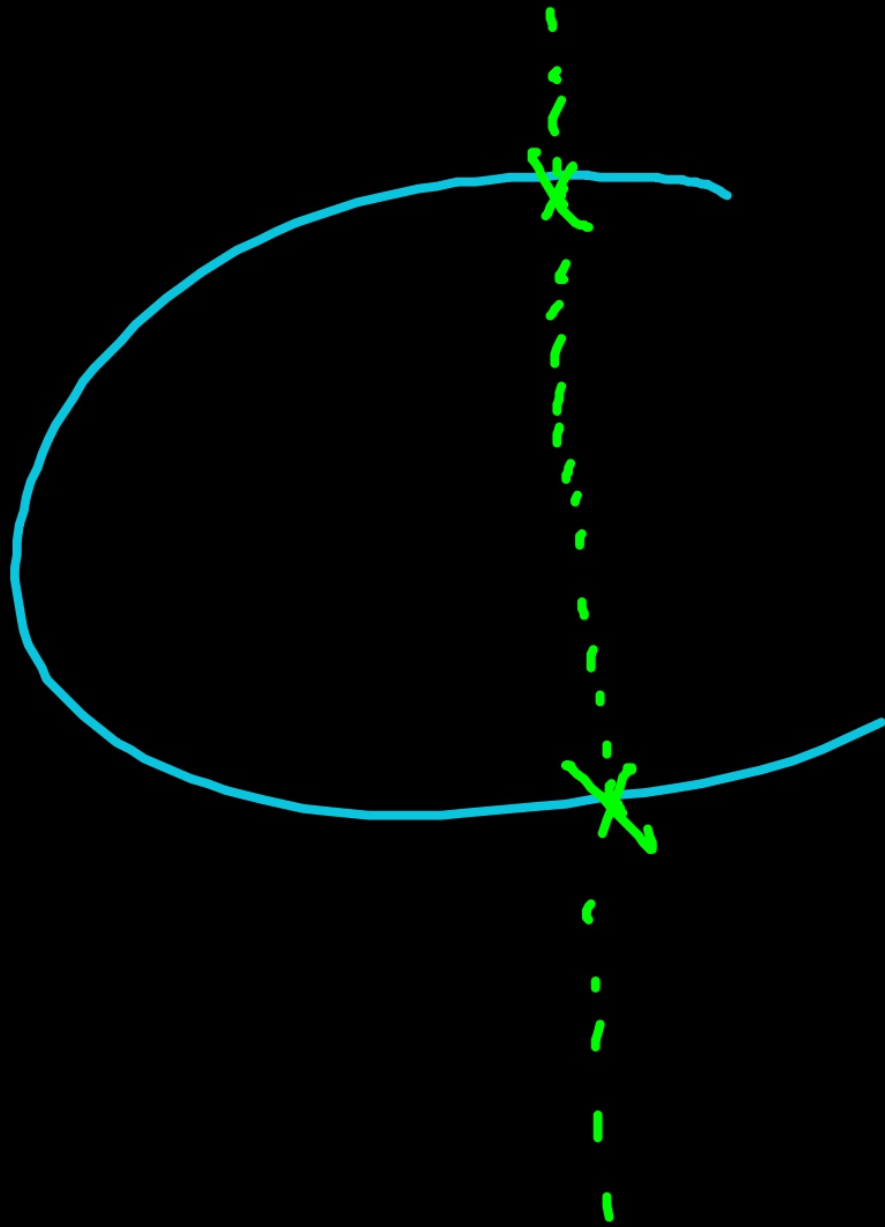
$$\frac{x^2 - 4}{x^3 - 3x^2 + 2x} \quad d = 2$$

$$\frac{(x+2)(x-2)}{x(x-2)(x-1)}$$

$$\text{Future Amt.} = \text{Initial amt} \left( 1 + \frac{r}{n} \right)^{t \cdot n}$$

$$\begin{aligned} \text{€ } 6415.96 &= 5000 \left( 1 + \frac{.0625}{12} \right)^{4 \cdot 12} \\ &5000 \left( 1 + \frac{.0625}{4} \right)^{4 \cdot 4} \end{aligned}$$





$$p = \log_a 10$$

$$q = \log_a 2^5$$

i)  $\log_a 10$

$p$

ii)  $\log_a 32$

$5q$

$p - 2q$

iii)  $\log_a 2.5$



$$y = (x+2)^2 - 2$$

$$150x - 0.6x^2 - (2600 + 0.4x^2)$$

$$x = 75$$