aaa

Def: x e y são **directamente proporcionais** sse $\frac{x}{y}$ é const.

Def: x e y são **inversamente proporcionais** sse $xy = \text{const.}$

Casos notáveis

$(a \pm b)^2 = a^2 \pm 2ab + b^2$

$(a+b)(a-b) = a^2 - b^2$

- $(\underbrace{xy}_{a} + \underbrace{2}_{b})^2 = \underbrace{(xy)^2}_{a^2} + \underbrace{2xy \cdot 2}_{2ab} + \underbrace{2^2}_{b^2} =$

$$= x^2 y^2 + 4xy + 4$$

- $\underbrace{16x^4}_{a^2} - \underbrace{8x^2 \cdot 2y}_{-2ab} + \underbrace{4y^2}_{b^2} = (\underbrace{4x^2}_{a} - \underbrace{2y}_{b})^2$

$a^2 = 16x^4 \Leftrightarrow a^2 = 4^2 (x^2)^2 \Leftrightarrow a^2 = (4x^2)^2 \Leftrightarrow a = 4x^2$

$b^2 = 4y^2 \Leftrightarrow b^2 = 2^2 \cdot y^2 \Leftrightarrow b^2 = (2y)^2 \Leftrightarrow b = 2y$

$-2ab = -2 \cdot 4x^2 \cdot 2y = -16x^2 y$ ✓

$-x > 2$

$x < -2$

$D = \frac{1}{6}^{-x}_{2,4}$ $\Leftrightarrow 4x = 1$