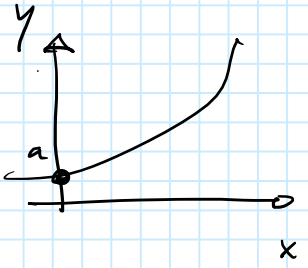
08 Logarithmische Darstellung

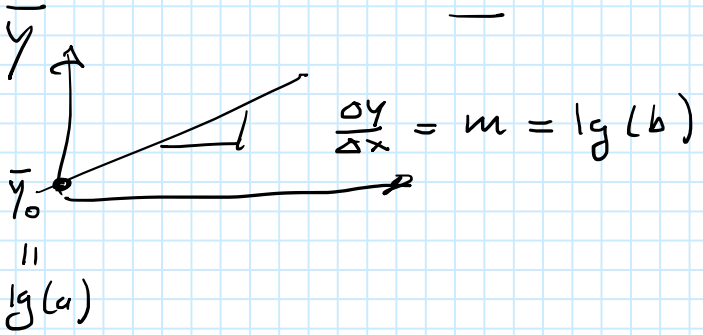
Donnerstag, 13. April 2023 14:22

$$f(x) = a \cdot b^x = y$$

$$\bar{y} = \lg(y) = \lg(a \cdot b^x) = \lg(a) + x \cdot \lg(b)$$

$$= mx + \bar{y}_0$$



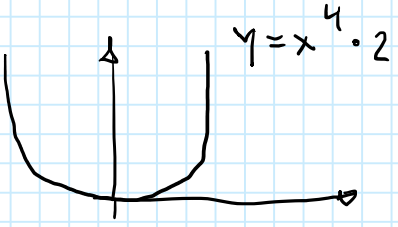


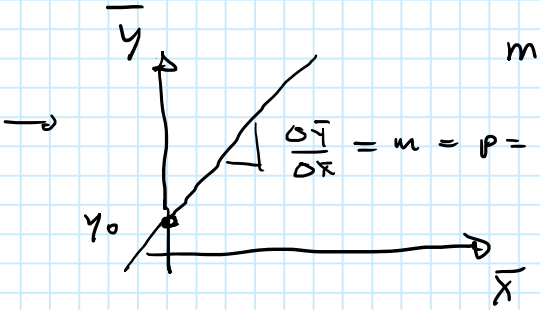
Potenzfunktion $f(x) = a \cdot x^p = y$

$$\bar{y} = \lg(y) = \lg(a) + p \cdot \underbrace{\lg(x)}_{\bar{x}} = \lg(a) + p\bar{x}$$

$$= \bar{y}_0 + m\bar{x}$$

$m = p$





$\bar{y}_0 = \lg(a) = \lg(2)$