

a) $f(x) = c \cdot a^x$

$$c = f(0) = 2 \quad \rightarrow \quad f(x) = 2a^x$$

$$P(-1|6) \quad \rightarrow$$

$$\begin{array}{cc} \uparrow & \uparrow \\ x & y \end{array}$$

$$6 = 2a^{-1}$$

$$a = 3$$

$$f(x) = 2 \cdot 3^x$$

b) $c = f(0) = 0,5 \quad \rightarrow \quad f(x) = 0,5a^x$

$$P(-1|1) \quad \rightarrow \quad 1 = 0,5a^{-1}$$

$$a = 2$$

$$f(x) = 0,5 \cdot 2^x$$

c) $c = f(0) = 4 \quad \rightarrow \quad f(x) = 4a^x$

$$P(1|6) \quad \rightarrow \quad 6 = 4a^1$$

$$a = 1,5$$

$$f(x) = 4 \cdot 1,5^x$$

d) $c = f(0) = 1 \quad \rightarrow \quad f(x) = 1a^x$

$$P(-1|5) \quad \rightarrow \quad 5 = 1a^{-1}$$

$$a = \frac{1}{5}$$

$$f(x) = 1 \cdot \left(\frac{1}{5}\right)^x$$