

De wet van Moore

1. $A = 4 \cdot 2^{(\frac{1}{2} \cdot 14)} = 512$

Dus 512 transistors in 1975

2. $4 \cdot 2^{(\frac{1}{2} \cdot a)} = 10^9$

$$a = 2 \cdot \frac{\log(10^9 / 4)}{\log 2} = 55,8$$

$$2250 \cdot 2^{(\frac{1}{2} \cdot p)} = 10^9$$

$$p = 2 \cdot \frac{\log(10^9 / 2250)}{\log 2} = 37,5$$

A: $1961 + 55,8 = 2016,8$

P: $1971 + 37,5 = 2008,5$

} verschil is 8 jaar

3. $P = 2250 \cdot 2^{(\frac{1}{2} \cdot t)}$

$$\log P = \log(2250 \cdot 2^{(\frac{1}{2} \cdot t)})$$

$$\log P = \log(2250) + \frac{1}{2} \cdot t \cdot \log 2$$

Dus: $a = \frac{1}{2} \cdot \log 2$

$$b = \log 2250$$