

Exponentielle Rapidität  $\rightarrow$  increase to power in time logarithmic

$$2^{10} \rightarrow \underbrace{2^5}_{\downarrow} \cdot 2^5$$

$$2^x = \underbrace{2^{\frac{x}{2}}}_{\downarrow} \cdot 2^{\frac{x}{2}}$$

$$2^5 \rightarrow \underbrace{2^2}_{\downarrow} : 2^2 : \underbrace{2}_{\text{rest}}$$

$$\hookrightarrow 2^2 \rightarrow 2 : 2$$

int ecb(int a, int b) {  $\rightarrow O(\log_2 b)$

if (b == 0)  
return 1;

int m = ecb(a, b/2);

if (b % 2 == 0)  
return m \* m;

else return m \* m \* a;

}