

$$T(n) = 4T(n/3) + n^3$$

$$a = 4$$

$$b = 3$$

$$F(n) = n^3$$

$$n^{\log_4 3}$$

VS

$$n^3$$

$$n^{0.8}$$

VS

$$n^3$$

entonces Omega

$$0 \leq c_1 g(n) \leq F(n)$$

$$0 \leq c_1 n^{0.8+e} \leq n^3$$

$$0 \leq c_1 n^{0.8+e} \leq n^3 \quad e = 0.2$$

$$0 \leq c_1 n^{0.8+0.2} \leq n^3$$

$$0 \leq c_1 n^1 \leq n^3$$

$$\left(0 \leq c_1 n \leq n^3 \right) * \frac{1}{n}$$

$$0 \leq c_1 \leq n^2$$

Verdad para el caso 3 del
metodo morcho

$$T(n) = \Theta(n^{\log_b a})$$

$$T(n) = \Theta(n^{0.8})$$