

# RADIX SORT

V = 104, 107, 114, 89, 134, 34, 77, 204, 99,  
COUNTING SORT UNIDADES (divisor  $10^0 = 1$ )

C =  
0 0 0 0 5 0 0 2 0 2  
0 1 2 3 4 5 6 7 8 9

V = 104 114 134 34 204 107 77 89 99

COUNTING SORT DEZENAS (divisor  $10^1 = 10$ )

C =  
3 1 0 2 0 0 0 1 1 1  
0 1 2 3 4 5 6 7 8 9

V = 104 204 107 114 134 034 077 089 099

COUNTING SORT CENTENAS (divisor  $10^2 = 100$ )

C =  
4 4 1 0 0 0 0 0 0 0  
0 1 2 3 4 5 6 7 8 9

V = 034 077 089 099 104 107 114 134 204

$$129_{10} = 1 \times 10^2 + 2 \times 10^1 + 9 \times 10^0$$

$$= 1 \times 10^2 + 2 \times 10^1 + 9 \times 10^0$$

$$129 / 10 = 12 \quad 129 \% 10 = 9$$

$$12 = 1 \times 10^1 + 2 \times 10^0$$

$$12 / 10 = 1 \quad 12 \% 10 = 2$$

$$1 = 1 \times 10^0$$

$$1 / 10 = 0 \quad 1 \% 10 = 1$$

$$d(N, pos) = (N / 10^{pos}) \% 10$$

$$d(N, pos, b) = (N / \underbrace{b^{pos}}_{\text{divisor}}) \% b$$

$$\frac{x^a}{x^b} = x^{a-b}$$

$$a-b=0$$

$$a=b$$

$$129_{10} = 1 \times 10^2 + 2 \times 10^1 + 9 \times 10^0$$

$$= 1 \times 10^0 + \boxed{2 \times 10^{-1} + 9 \times 10^{-2}}$$

$$129_{10} = 1 \times 10^2 + 2 \times 10^1 + 9 \times 10^0$$

$$= 1 \times 10^1 + 2 \times 10^0 + \boxed{9 \times 10^{-1}}$$