

## Integrales

$$\begin{array}{ccc} & \text{Derivar} & \\ & \longrightarrow & \\ x^2 + C & & 2x \\ & \longleftarrow & \\ & \text{Integrar} & \end{array}$$

$$\int 2x \, dx = x^2 + C$$

### Integrales inmediatas (Pensar en derivadas)

1)  $\int 0 \, dx = C$

$$\begin{array}{ccc} & \text{integrar} & \\ & \longrightarrow & \\ 2) \int k \, dx = kx + C & & \\ & \longleftarrow & \\ & \text{Derivar} & \end{array}$$

3)  $\int x^a \, dx = \frac{x^{a+1}}{a+1} + C$

4)  $\int f^a \cdot f' \cdot dx = \frac{f^{a+1}}{a+1} + C$

5)  $\int \frac{1}{x} \, dx = L|x| + C$

6)  $\int \frac{f'}{f} \, dx = L|f| + C$

7)  $\int e^x \, dx = e^x + C$

8)  $\int e^f \cdot f' \cdot dx = e^f + C$

$$9) \int a^x dx = \frac{a^x}{La} + C$$

$$10) \int a^f \cdot f' \cdot dx = \frac{a^f}{La} + C$$

$$11) \int \cos x \cdot dx = \text{sen } x + C$$

$$12) \int \cos f \cdot f' \cdot dx = \text{sen } f + C$$

$$13) \int \text{sen } x \cdot dx = -\cos x + C$$

$$14) \int \text{sen } f \cdot f' \cdot dx = -\cos f + C$$

$$15) \int \sec^2 x \cdot dx = \text{tg } x + C$$

$$16) \int \sec^2 f \cdot f' \cdot dx = \text{tg } f + C$$

#### PROPIEDADES

1)

$$\int a \cdot f \cdot dx = a \cdot \int f \cdot dx$$

2)

$$\int (f \pm g) \cdot dx = \int f \cdot dx \pm \int g \cdot dx$$