

Tarea: Ejercicios de Cálculo, 1

1. Calcula

$$\lim_{x \rightarrow 2} \frac{x^2 + 2x - 8}{x - 2}$$

2. Calcula

$$\lim_{x \rightarrow (\pi/2)^+} \sec(x)$$

3. Calcula

$$\lim_{x \rightarrow (\pi/2)^-} \sec(x)$$

4. Calcula

$$\frac{d}{dx} [x^2 e^{3x} \cos(2x)]$$

5. Calcula

$$\frac{d}{dt} \left[\frac{t^2 + 1}{t - 2} \right]$$

6. Calcula

$$\frac{d}{dy} [x \cos(x)]$$

7. Calcula

$$\int \frac{x + 1}{x^2 + 2x + 1} \, dx$$

8. Calcula

$$\int_{-\pi/4}^{\pi/4} \sec(x) \, dx$$

9. Calcula

$$\int x e^{-x^2} \, dx$$