

Regla de la Cadena

1. Completar los cuadros vacíos, para que la igualdad tenga sentido (Escriba en los recuadros "sin dejar espacio" y letra minúscula)

I)

$$\frac{d}{dx} \sqrt{\frac{x+1}{2x-1}} = \frac{d}{dx} \left(\frac{x+1}{2x-1} \right)^{\frac{\square}{\square}}$$

$$= \frac{\square}{\square} \left(\frac{x+1}{2x-1} \right)^{\frac{\square}{\square}} \cdot \frac{d}{dx} \left(\frac{\square}{\square} \right)$$

$$= \frac{1}{2} \left(\frac{2x-1}{x+1} \right)^{\frac{\square}{\square}} \cdot \frac{(\square) \frac{d}{dx}(\square) - (\square) \frac{d}{dx}(\square)}{(\square)^{\square}}$$

$$= \frac{1}{2} \left(\frac{2x-1}{x+1} \right)^{\frac{1}{2}} \cdot \frac{(\square) - \square(\square)}{(x+1)^2}$$

$$= \frac{1}{2} \left(\frac{2x-1}{x+1} \right)^{\frac{1}{2}} \cdot \frac{\square x - \square - 2x - 2}{(x+1)^2}$$

$$= \frac{1}{2} \frac{(2x-1)^{\frac{1}{2}}}{(x+1)^{\frac{3}{2}}} \cdot \frac{\square}{(x+1)^2}$$

$$= \frac{\square (2x-1)^{\frac{1}{2}}}{\square (x+1)^{\frac{3}{2}}}$$

$$ii) \frac{d}{dx} \left(\frac{\sqrt{2x-1}}{x+1} \right) = \frac{d}{dx} \frac{(2x-1)^{1/2}}{x+1}$$

$$= \frac{(\boxed{}) \frac{d}{dx} (\boxed{})^{1/2} - (\boxed{})^{1/2} \frac{d}{dx} (\boxed{})}{(\boxed{})^2}$$

$$= \frac{(\boxed{}) \left(\frac{1}{2} \right) (\boxed{})^{\boxed{}/\boxed{}} \frac{d}{dx} (\boxed{}) - (2x-1)^{1/2}}{(x+1)^2}$$

$$= \frac{\frac{1}{2}(x+1)(2x-1)^{-1/2} (\boxed{}) - (2x-1)^{1/2}}{(x+1)^2}$$

$$= \frac{(x+1)(2x-1)^{-1/2} - (2x-1)^{1/2}}{(x+1)^2}$$

$$= \frac{(2x-1)^{\boxed{}/\boxed{}} [(\boxed{}) - (\boxed{})]}{(x+1)^2}$$

$$= \frac{(2x-1)^{-1/2} (2 - \boxed{})}{(x+1)^2}$$