

$$189 \quad D\left(e^x \operatorname{tg} \frac{x}{2}\right) = e^x \frac{1 + \operatorname{sen} x}{1 + \cos x}$$

$$190 \quad D \log \operatorname{tg} \left(\frac{x + \pi}{2} \right) = \frac{1}{\cos x}$$

$$191 \quad D \left[\frac{x}{2} (\operatorname{sen} \log x - \cos \log x) \right] = \operatorname{sen} \log x$$

$$192 \quad D e^{\operatorname{sen} x} (\cos x + \operatorname{sen} x) = e^{\operatorname{sen} x} (\cos^2 x + \operatorname{sen} x \cos x - \operatorname{sen} x + \cos x)$$

$$193 \quad D \left(3e^x \operatorname{tg} \frac{x}{2} + 5x \right) = 3e^x \left[\operatorname{tg} \frac{x}{2} + \frac{1}{2} \left(1 + \operatorname{tg}^2 \frac{x}{2} \right) \right] + 5$$

$$194 \quad D (\operatorname{sen}^3 3x + \cos 2x + 4x^2) = 2(3 \operatorname{sen} 3x \cos 3x - \operatorname{sen} 2x + 4x)$$

$$195 \quad D \frac{\sqrt{1 + \operatorname{sen} 2x}}{\operatorname{tg} x} = \frac{\operatorname{tg}^2 x (-1 - \operatorname{sen} 2x) + \operatorname{tg} x \cos 2x - \operatorname{sen} 2x - 1}{\operatorname{tg}^2 x \sqrt{1 + \operatorname{sen} 2x}}$$

$$196 \quad D (\operatorname{sen} x \cos 2x) = 6 \cos^3 x - 5 \cos x$$

$$197 \quad D e^{x^2-2x} = 2(x-1)e^{x^2-2x}$$

$$198 \quad D (\operatorname{sen} 2x + \cos 2x + 2x) = 4 \cos x (\cos x - \operatorname{sen} x)$$

$$199 \quad D \operatorname{sen}^2 (8x + 5) = 8 \operatorname{sen} (16x + 10)$$

$$200 \quad D \cos^2 (5x - 1) = -5 \operatorname{sen} (10x - 2)$$

$$201 \quad D \sqrt{1 + \operatorname{sen} 2x} = \frac{\cos 2x}{|\operatorname{sen} x + \cos x|}$$

$$202 \quad D (\log \cos x + x \operatorname{tg} x) = \frac{x}{\cos^2 x}$$

$$203 \quad D \left(2 \operatorname{tg}^3 \frac{x}{2} - 6 \operatorname{tg} \frac{x}{2} + 3x \right) = 3 \operatorname{tg}^4 \frac{x}{2}$$

$$204 \quad D \left(x e^{\frac{x-1}{x}} \right) = e^{\frac{x-1}{x}} \cdot \frac{x+1}{x}$$

$$205 \quad D \left(\log \frac{x}{x+1} + \frac{1}{x} - \frac{1}{2x^2} \right) = \frac{1}{x^3(x+1)}$$