

"MATERIA".CÁLCULO

**NOMBRE DEL DOCENTE. JORGE ENRIQUE ALBORES
AGUILAR.**



PRESENTA: EJERCICIOS

ALUMNO: DULCE ALEJANDRINA GARCÍA SANTIZ

CUATRIMESTRE

BACHILLERATO EN ENFERMERIA

ESCOLARIZADO

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1: $y' = \text{ARCSIN}(2x^2+2)$

$$\frac{2x}{(2x^2+2)\sqrt{(2x^2)^2-1}}$$
$$\frac{2x^2}{2x^2+2}\sqrt{2x^2+2x^4-1}$$

2: $y' = \text{ARCCOS}\sqrt{x^3}$

$$\frac{2x}{\sqrt{x^3}\sqrt{x^3}}$$
$$\frac{2x}{\sqrt{x^3}\sqrt{x^3-1}} = \frac{1}{\sqrt{x^3-1}}$$

3: $y' = \text{ARCTAG}(7x^3+1)$

$$\frac{2x}{\sqrt{(7x^3+1)^2-1}}$$
$$\frac{2x^2}{\sqrt{(7x^3+1)^6}}$$

4: $y' = \text{ARCSIN}(9x^3+8)$

$$\frac{2x}{\sqrt{(9x^3+8)^2-1}}$$
$$\frac{2x^2}{\sqrt{(9x^3+8)^6-1}}$$

5: $y' = \text{ARCCSC} 2x^9$

$$\frac{2x}{2x\sqrt{(2x^9)^2-1}}$$
$$= \frac{2x}{(2x^{18})-1} = \frac{1}{\sqrt{2x^{18}-1}}$$

6: $y' = \text{ARCTANG}\sqrt{2x}$

$$\frac{2x}{\sqrt{(2x)^2-1}}$$
$$= \frac{2x^2}{\sqrt{2x+5-1}}$$

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$$7: y' = \text{ARC SEC } 4+9$$

$$\frac{2x}{\sqrt{(4x^9)^2 - 1}}$$
$$= \frac{2x}{\sqrt{4x^{18} - 1}}$$

$$8: y' = \text{ARC TANG } 9x^3$$

$$\frac{2x}{\sqrt{(9x^8)^2 - 1}}$$
$$= \frac{2x}{\sqrt{9x^{16} - 1}}$$

$$9: y' = \text{ARCCSC } 12x^9$$

$$\frac{2x}{\sqrt{(12x^9)^2 - 1}}$$
$$= \frac{2x}{\sqrt{12x^{18} - 1}}$$

$$10: y' = \text{ARCTANG } \sqrt{2x^3}$$

$$\frac{2x}{\sqrt{(2x^3)^2 - 1}}$$
$$= \frac{2x}{\sqrt{2x^6 - 1}}$$