

**"MATERIA".calculo**

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**PRESENTA:**

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**CUATRIMESTRE**

**LICENCIATURA**

**SEMIESCOLARIZADO**

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

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

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

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

$$\frac{2x}{\sqrt{x^3}} \sqrt{x^3}$$

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

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

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

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

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

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

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

$$5. y' = \text{ARCCSC} 2x^4$$

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

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

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

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

$$7. - y' = \text{ARCCSC } 4 + 9$$

$$\frac{2x}{\sqrt{(4x9)^2 - 1}}$$
$$= \frac{2x}{\sqrt{4x18 - 1}}$$

$$8. - y' = \text{ARCTANG } 9x^3$$

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

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

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

$$10. - y' \text{ ARCTANG } \sqrt{2x3}$$

$$\frac{2x}{\sqrt{(2x3)^2 - 1}}$$
$$= \frac{2x}{\sqrt{2x6 - 1}}$$