

Tec. Enfermería

**Profe. Jorge Enrique
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PRESENTA EL ALUMNO:

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GRUPO, SEMESTRE y MODALIDAD:

4to. Semestre y grupo A, Calculo.

Fecha: 05/06/2020

$$F(x) = \operatorname{arccosec} x$$

$$F'(x) = \frac{u'}{u' \sqrt{u^2 - 1}}$$

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

$$2- F(x) = \operatorname{arccosec} 5x$$

$$F'(x) = \frac{u'}{u' \sqrt{u^2 - 1}}$$

$$\frac{5x}{5x \sqrt{(5x)^2 - 1}} = \frac{5x}{5x \sqrt{10x^2 - 1}} = \frac{1}{\sqrt{10x^2 - 1}}$$

3-

$$F(x) = \operatorname{arccosec} 7x$$

$$F'(x) = \frac{u'}{u' \sqrt{u^2 - 1}}$$

$$\frac{7x}{7x \sqrt{(7x)^2 - 1}} = \frac{7x}{7x \sqrt{14x^2 - 1}} = \frac{1}{\sqrt{14x^2 - 1}}$$

4-

$$F(x) = \operatorname{arccosec} x^4$$

$$F'(x) = \frac{u'}{u' \sqrt{u^2 - 1}}$$

$$\frac{4x}{4x \sqrt{(x^4)^2 - 1}} = \frac{4x}{4x \sqrt{x^8 - 1}} = \frac{1}{\sqrt{x^8 - 1}}$$

5-

$$F(x) = \operatorname{arccosec} x^9$$

$$F'(x) = \frac{u'}{u' \sqrt{u^2 - 1}}$$

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

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$$6. F(x) = \operatorname{arccosec} 2x^7 \quad F'(x) = \frac{u'}{u \sqrt{u^2 - 1}}$$

$$\frac{2x^7}{2x^7 \sqrt{(2x^7)^2 - 1}} = \frac{2x^7}{2x^7 \sqrt{4x^{14} - 1}} = \frac{1}{\sqrt{4x^{14} - 1}}$$

$$7. F(x) = \operatorname{arccosec} 6x^6 \quad F'(x) = \frac{u'}{u \sqrt{u^2 - 1}}$$

$$\frac{6x^6}{6x^6 \sqrt{(6x^6)^2 - 1}} = \frac{6x^6}{6x^6 \sqrt{12x^{12} - 1}} = \frac{1}{\sqrt{12x^{12} - 1}}$$

$$8. F(x) = \operatorname{arcsec} x^4 \quad F'(x) = \frac{u'}{u \sqrt{u^2 - 1}}$$

$$\frac{4x}{x^4 \sqrt{(x^4)^2 - 1}} = \frac{4x}{x^4 \sqrt{x^8 - 1}}$$

$$9. F(x) = \operatorname{arcsec} x^9 \quad F'(x) = \frac{u'}{u \sqrt{u^2 - 1}}$$

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

$$10. F(x) = \operatorname{arcsec} 2x^7 \quad F'(x) = \frac{u'}{u \sqrt{u^2 - 1}}$$

$$\frac{14x}{2x^7 \sqrt{(2x^7)^2 - 1}} = \frac{14x}{2x^7 \sqrt{4x^{14} - 1}}$$

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11. $F(x) = \operatorname{arccsc} 6x^6 \Rightarrow F'(x) = \frac{u'}{u \sqrt{u^2 - 1}}$

$$\frac{36x}{6x^6 \sqrt{(6x^6)^2 - 1}} = \frac{36x}{6x^6 \sqrt{12x^{12} - 1}}$$

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