

"MATERIA". CÁLCULO

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



PRESENTA: EXAMEN

ALUMNO: DULCE ALEJANDRINA GARCÍA SANTIZ

CUATRIMESTRE

BACHILLERATO EN ENFERMERIA

ESCOLARIZADO

FECHA DE ENTREGA: 9/JUL/2020

Duice Alejandra García Santiz

1: $y = \operatorname{arccot} 2x^3$

$$\frac{-6x^2}{1 + (2x^3)^2} = \frac{-6x^2}{1 + 4x^6}$$

2: $y = \operatorname{arccsc} 10x^8$

$$\frac{-80x^7}{80x^7 \sqrt{(10x^8)^2 - 1}} = \frac{-80x^7}{80x^7 \sqrt{100x^{16} - 1}} = \frac{-1}{\sqrt{100x^{16} - 1}}$$

3: $y = \arctan 30x^8$

$$\frac{240x^7}{1 + (30x^8)^2} = \frac{240x^7}{1 + 900x^{16}}$$

4: $y = \arctan 15x^3$

$$\frac{45x^2}{1 + (15x^3)^2} = \frac{45x^2}{1 + 225x^6}$$

5: $y = \operatorname{arccot} 3x^4$

$$\frac{-12x^3}{\sqrt{1 + (3x^4)^2}} = \frac{-12x^3}{\sqrt{1 + 9x^8}}$$

6: $y = \operatorname{arccsc} 4x^4$

$$\frac{-16x^3}{16x^3 \sqrt{(4x^4)^2 - 1}} = \frac{16x^3}{16x^3 \sqrt{16x^8 - 1}} = \frac{-1}{\sqrt{16x^8 - 1}}$$

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7: $y = \operatorname{arcsec} 12x^4$

$$\frac{48x^3}{12x^4 \sqrt{(12x^4)^2 - 1}} = \frac{48x^3}{12x^4 \sqrt{144x^6 - 1}}$$

8: $y = \arctan 40x^3$

$$\frac{120x^2}{1 + (40x^3)^2} = \frac{120x^2}{1 + 1600x^6}$$

9: $y = \arccos 4x^6$

$$\frac{-24x^5}{\sqrt{1 - (4x^6)^2}} = \frac{-24x^5}{\sqrt{1 - 16x^{12}}}$$

10: $y = \arctan 6x^3$

$$\frac{18x^2}{1 + (6x^3)^2} = \frac{18x^2}{1 + 36x^6}$$