

Thanks For Coming

NAME: MOKOLO STEVE CHARLZOR

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COMPUTER ENGINEERING

MAT 104 ASSIGNMENT

$$(1) \quad y = \frac{2 \cos 3x}{x^3}$$

Derivation Order 1

$$= 2 \left( \frac{-3 \sin 3x}{x^3} \right) + 2 \left( \frac{-3 \cos 3x}{x^4} \right)$$

4.  $e^x \sin 2x$

$$\int (e^x \sin 2x) dx$$

$$\int (e^{ax} \sin(bx))$$

$$= \frac{e^{ax} (a \sin(bx) - b \cos(bx))}{b^2 + a^2}$$

$$= \int (e^x \sin 2x) dx = 1$$

$$= \frac{1}{5} = e^x (\sin 2x - 2 \cos 2x)$$

$$= \frac{1}{5} = e^x (\sin 2x - 2 \cos 2x) //$$