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ALUMNA: ESMERALDA DE JESUS CRUZ
ARGUELLO

MATERIA: MATEMATICAS APLICADA

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$$1. \int \sin^{-1} 3x^2 dx = \frac{\sqrt{1-(3)^2(x^2)^2} + x \sin^{-1}(3x)}{3} + C$$

$$= \frac{\sqrt{1-9x^4} + x \sin^{-1} 3x^2}{3} + C$$

$$= \frac{\sqrt{1-9x^4}}{3} + \frac{x}{\sin 3x^2} + C$$

$$2. \int \tan^{-1} \frac{1}{x^2} dx = x^2 \tan^{-1}(\frac{1}{x^2}) - \frac{\ln |(1)^2(x^2)^2 + 1|}{2(1)} + C$$

$$= x^2 \tan^{-1}(\frac{1}{x^2}) - \frac{\ln |2(x^4) + 1|}{2} + C$$

$$= \frac{x^2}{\tan^2/x^2} - \frac{\ln |3x^4|}{2} + C$$

$$3. \int \cot^{-1} \sqrt{2x} dx = \frac{\ln |\sqrt{2} (x)^2 + 1|}{2(\sqrt{2})} + \cot^{-1}(\sqrt{2x}) + C$$

$$R = \frac{\ln |3x^2 + 1|}{2.82} + \frac{x}{\cot \sqrt{2x}}$$

$$4. \int \cos^{-1} 5x dx = \frac{x}{\cos 5x} - \frac{\sqrt{1-(5)^2(x)^2}}{5} + C$$

$$R = \frac{x}{\cos 5x} - \frac{\sqrt{1-25x^2}}{5} + C$$

$$R = \frac{x}{\cos 5x} - \frac{\sqrt{1-25x^2}}{5} + C$$

$$5 \int \frac{\csc^{-1} 2x^2 dx}{x^2} = R = \ln |2 \sqrt{(2)^2(x^2)^2 - 1 + 2x^2}|$$

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

$$\ln |2 \sqrt{4x^2 - 1 + 2x^2}| + \frac{x^2}{\csc 2x^2} + C$$

$$\ln |2 \frac{\sqrt{5x^4}}{2}| + \frac{x^2}{\csc 2x^2} + C$$

$$\int \frac{\sec^{-1} \sqrt{2x^2} dx}{x^2} = R = \sqrt{1 - (\sqrt{2}^2(x^2)^2) + 2} \sec^{-1}(\sqrt{2}x^2) + C$$

$$\frac{\sqrt{1 - 2x^4}}{1.4} + \frac{x^2}{\sec \sqrt{2}x^2} + C$$

$$\sqrt{1 - 14x^4} + \frac{x^2}{\sec \sqrt{2}x^2} + C$$