

**NOMBRE DEL ALUMNO: OSWALDO  
JAVIER LÓPEZ ÁLVAREZ**

**NOMBRE DEL PROFESOR: JORGE  
ENRIQUE**

**NOMBRE DEL TRABAJO: MAPA CONCEPTUAL**

PASIÓN POR EDUCAR

**MATERIA: FISICA**

**GRUPO: RECURSOS HUMANOS**

**GRADO: 5**

**COMITAN DE DOMINGEZ, CHIAPAS**

$$1.^{\circ} \int \text{Sen } 8x \, dx$$

$$u = 8x \quad du = 8$$

$$\frac{1}{8} \int \text{sen } 8x \, dx$$

$$-\frac{1}{8} \cos 8x + C$$

$$2.^{\circ} \int x \cos 2x^2 \, dx$$

$$u = 2x^2 \quad du = 4x$$

$$\frac{1}{4} \int x \cos 2x^2 \, dx$$

$$\frac{1}{4} \text{sen } 2x^2 + C$$

$$3.^{\circ} \int \frac{\tan \sqrt{x}}{\sqrt{x}} \, dx$$

$$u = \sqrt{x} \quad du \frac{d(\sqrt{x})}{dx} = \frac{d(x^{1/2})}{dx}$$

$$x^n = n x^{n-1} \quad \frac{1}{2} x^{1/2} = \frac{1}{2} x^{1/2} = \frac{1}{\sqrt{x}}$$

$$2 \int \frac{\tan \sqrt{x}}{\sqrt{x}} \, dx$$

$$-2 \ln |\cos \sqrt{x}| + C$$

$$4.^\circ \int x^2 \cot 3x^3 dx$$

$$u = 3x^3 \quad du = 9x^2$$

$$\frac{1}{9} \int x^2 \cot 3x^3 dx$$

$$\frac{1}{9} \ln |\cos 3x^3| + C$$

$$5.^\circ \int x \sec 2x^2 dx$$

$$u = 2x^2 \quad du = 4x$$

$$\frac{1}{4} \int x \sec 2x^2 dx$$

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

$$6.^\circ \int \tan 2x dx$$

$$u = 2x \quad du = 2$$

$$\frac{1}{2} \int \tan 2x dx$$

$$-\frac{1}{2} \ln |\cos 2x| + C$$

$$7.^\circ \int 3x^2 \tan x^3 dx$$

$$u = x^3 \quad du = 3x^2$$

$$\frac{1}{3} \int 3x^2 \tan x^3 dx$$

$$-\frac{1}{3} \ln |\cos x^3| + C$$

$$8.^\circ \int x \sec 10x^2 dx$$

$$u = 10x^2 \quad du = 20x$$

$$\frac{1}{20} \int x \sec 10x^2 dx$$

$$\frac{1}{20} \ln |\sec 10x^2 + \tan 10x^2| + C$$