

## Answer on Question #47035 – Math – Differential Calculus | Equations

Find the  $dy/dx$ , if  $y = \sin 5x$

$\cos 5x$

$5 \sin 4x$

$5 \cos 5x$

$5 \sin 5x$

**Solution:**

We have if

$$y = \sin(\alpha * x)$$

then

$$\frac{dy}{dx} = \alpha * \cos(\alpha * x).$$

Hence

$$\frac{dy}{dx} = 5 * \cos(5 * x)$$

for

$$y = \sin(5 * x).$$

**Answer:**  $\frac{dy}{dx} = 5 \cos 5x$