

## Answer on Question #47032 – Math - Differential Calculus | Equations

Find the  $dy/dx$ , if  $y=(\sin x)^{-1}$ .

**Solution.**

$$\frac{dy}{dx} = \frac{d}{dx} \left( \frac{1}{\sin(x)} \right) = \frac{d(\sin(x))^{-1}}{dx} = -\frac{(\sin(x))'}{\sin^2(x)} = -\frac{\cos(x)}{\sin^2(x)}.$$

**Answer:**  $-\frac{\cos(x)}{\sin^2(x)}.$