

## 5.5 The Derivative of $\tan x$

**Minds On:** Determine the derivative of  $y = \tan x$ .

**Derivative of  $\tan x$ :**

$$\frac{d}{dx}(\tan x) =$$

**Example 1:** Determine  $\frac{dy}{dx}$  for:

a)  $y = \tan(x^2 + 3x)$

b)  $y = (\sin x + \tan x)^4$

c)  $y = x \tan(2x - 1)$