

Example 18 **Self Tutor**

Expand and simplify:

a $(x + 8)(x - 8)$

b $(4 - y)(4 + y)$

a
$$\begin{aligned}(x + 8)(x - 8) \\ &= x^2 - 8^2 \\ &= x^2 - 64\end{aligned}$$

b
$$\begin{aligned}(4 - y)(4 + y) \\ &= 4^2 - y^2 \\ &= 16 - y^2\end{aligned}$$

Example 19 **Self Tutor**

Expand and simplify:

a $(3x + 2)(3x - 2)$

b $(4x - 3y)(4x + 3y)$

a
$$\begin{aligned}(3x + 2)(3x - 2) \\ &= (3x)^2 - 2^2 \\ &= 9x^2 - 4\end{aligned}$$

b
$$\begin{aligned}(4x - 3y)(4x + 3y) \\ &= (4x)^2 - (3y)^2 \\ &= 16x^2 - 9y^2\end{aligned}$$