

Exercise 125

In the following exercises, evaluate each expression.

$$3x^2 - 4xy + 2y^2 \text{ when}$$

$$x = -2, y = -3$$

Solution

If $x = -2$ and $y = -3$, then

$$\begin{aligned} 3x^2 - 4xy + 2y^2 &= 3(-2)^2 - 4(-2)(-3) + 2(-3)^2 \\ &= 3(4) - 4(6) + 2(9) \\ &= 12 - 24 + 18 \\ &= 12 - 6 \\ &= 6. \end{aligned}$$