

Exercise 126

In the following exercises, evaluate each expression.

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

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

Solution

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

$$\begin{aligned} 4x^2 - xy + 3y^2 &= 4(-3)^2 - (-3)(-2) + 3(-2)^2 \\ &= 4(9) - (6) + 3(4) \\ &= 36 - 6 + 12 \\ &= 36 + 6 \\ &= 42. \end{aligned}$$