



Algebraic Expressions and Identities Ex 6.4 Q1

Answer :

To find the product, we will use distributive law as follows:

$$\begin{aligned} & 2a^3(3a + 5b) \\ &= 2a^3 \times 3a + 2a^3 \times 5b \\ &= (2 \times 3)(a^3 \times a) + (2 \times 5)a^3b \\ &= (2 \times 3)a^{3+1} + (2 \times 5)a^3b \\ &= 6a^4 + 10a^3b \end{aligned}$$

Thus, the answer is $6a^4 + 10a^3b$.

Algebraic Expressions and Identities Ex 6.4 Q2

Answer :

To find the product, we will use distributive law as follows:

$$\begin{aligned} & -11a(3a + 2b) \\ &= (-11a) \times 3a + (-11a) \times 2b \\ &= (-11 \times 3) \times (a \times a) + (-11 \times 2) \times (a \times b) \\ &= (-33) \times (a^{1+1}) + (-22) \times (a \times b) \\ &= -33a^2 - 22ab \end{aligned}$$

Thus, the answer is $-33a^2 - 22ab$.

Algebraic Expressions and Identities Ex 6.4 Q3

Answer :

To find the product, we will use distributive law as follows:

$$\begin{aligned} & -5a(7a - 2b) \\ &= (-5a) \times 7a + (-5a) \times (-2b) \\ &= (-5 \times 7) \times (a \times a) + (-5 \times (-2)) \times (a \times b) \\ &= (-35) \times (a^{1+1}) + (10) \times (a \times b) \\ &= -35a^2 + 10ab \end{aligned}$$

Thus, the answer is $-35a^2 + 10ab$.

Answer :

To find the product, we will use distributive law as follows:

$$\begin{aligned} & -11y^2(3y + 7) \\ &= (-11y^2) \times 3y + (-11y^2) \times 7 \\ &= (-11 \times 3)(y^2 \times y) + (-11 \times 7) \times (y^2) \\ &= (-33)(y^{2+1}) + (-77) \times (y^2) \\ &= -33y^3 - 77y^2 \end{aligned}$$

Thus, the answer is $-33y^3 - 77y^2$.

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