

1. Identify the like expressions. $5x, -14x, 3x^2 + 1, x^2, -9x^2, xy, -3xy$
2. Identify the terms and their coefficients for each of the following expressions:
 - (a) $3x^2y - 5x$
 - (b) $xyz - 2y$
 - (c) $-x - x^2$
3. Add: $-3a^2b^2, \frac{-5}{2}a^2b^2, 4a^2b^2, \frac{2}{3}a^2b^2$
4. Add: $8x^2 + 7xy - 6y^2, 4x^2 - 3xy + 2y^2$ and $-4x^2 + xy - y^2$
5. Subtract: $3x^2 - 5x + 7$ from $5x^2 - 7x + 9$
6. Multiply the following expressions:
 - (a) $3xy^2 \times (-5x^2y)$
 - (b) $\frac{1}{2}x^2yz \times \frac{2}{3}xy^2z \times \frac{1}{5}x^2yz$
7. Find the area of the rectangle whose length and breadths are $3x^2y$ m and $5xy^2$ m respectively.
8. Simplify the following:
 - (a) $a^2(b^2 - c^2) + b^2(c^2 - a^2) + c^2(a^2 - b^2)$
 - (b) $x^2(x - 3y^2) - xy(y^2 - 2xy) - x(y^3 - 5x^2)$
9. Multiply $(6x^2 - 5x + 3)$ by $(3x^2 + 7x - 3)$
10. Using suitable identity find:
 - (a) 96^2
 - (b) $231^2 - 131^2$