Subject: - Mathematics **PRACTICE PAPER** **CBSE-8th**

Topic: - Algebraic Expressions

1. The perimeter of a Δ is $7p^2 + 5p + 11$ and two of its sides are $p^2 + 2p - 1$ and $3p^2 - 6p + 3$. Find the third side of the Δ. **Ans. $3p^2 - p + 9$**

2. Subtract $7xy(x^2 - 2xy + 3y^2) - 8x(x^2y - 4xy + 7xy^2)$ from $3y(4x^2y - 5xy + 8xy^2)$.

Ans. $82x^2y^2 + 3xy^3 + x^3y - 15xy^2 - 32x^2y$

3. If two adjacent sides of a rectangle are $5x^2 + 25xy + 4y^2$ and $2x^2 - 2xy + 3y^2$. Find its area.

Ans. $10x^4 + 40x^3y + 67xy^3 - 27x^2y^2 + 12y^4$

4. Using the identity, solve: - $986^2 - 14^2$ **Ans. 972000**

5. If $x - \frac{1}{x} = 3$, Find i) $x^2 + \frac{1}{x^2}$ ii) $x^4 + \frac{1}{x^4}$ **Ans. i) 11 ii) 119**

6. Using identity, Solve:- $(4x + 5)(4x + 1)$ **Ans. $16x^2 + 24x + 5$**

7. Show that $(p - q)(p + q) + (q - r)(q + r) + (r - p)(r + p) = 0$

8. Divide $3x^5 + 7x^4 - 11x^3 + 8x^2 - 32x + 5$ by $2 + 3x + x^2$ **Ans. Q = $3x^3 - 2x^2 - 11x + 45$, R = $-145x - 85$.**

9. If $x^2 + y^2 = 9$ and $xy = 8$, then $x + y$ = ? **Ans. ± 5**

10. 3a is a factor of 42b. True or False.

11. What should be subtracted from $3x^2y^2 + 2xy^2 - 5xy + y^2 - 2x^2$ to get $2x^2 + 3y^2 - 2x^2y^2 - 5xy^2$?

Ans. $7xy^2 - 4x^2 - 2y^2 + 5x^2y^2 - 5xy$