8 CLASS MATH TUITION ASSIGNMENT

Assignment – 9

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Chapter = Algebraic Expressions and Identities

Submission Date = 01 January 2022 **MM = 30**

Q1. Verify that $(11pq + 4q)^2 - (11pq - 4q)^2 = 176pq^2$

Q2. Find the value of x, if $10000x = (9982)^2 - (18)^2$

Q3.

If $x^2 + \frac{1}{x^2} = 38$, find the values of:

(i) $x - \frac{1}{x}$ (ii) $x^4 + \frac{1}{x^4}$

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Q4. Using suitable identity find:
(i) 48^2
(ii) 96^2
(iii) $231^2 - 131^2$
(iv) 97×103
(v) $181^2 - 19^2 = 162 \times 200$

Q5. Multiply $x^2 + 2y$ by $x^3 - 2xy + y^3$ and find the value of the product for x = 1 and y = -1.?

Q6. Multiply $(6x^2 - 5x + 3)$ by $(3x^2 + 7x - 3)$

Q7. Simplify the following:
(i) $a^2 (b^2 - c^2) + b^2 (c^2 - a^2) + c^2 (a^2 - b^2)$
(ii) $x^2(x - 3y^2) - xy(y^2 - 2xy) - x(y^3 - 5x^2)$

Q8. Subtract: $3x^2 - 5x + 7$ from $5x^2 - 7x + 9$

Q9. Add: $8x^2 + 7xy - 6y^2$, $4x^2 - 3xy + 2y^2$ and $-4x^2 + xy - y^2$

Q10. Add: $-3a^2b^2$, $-52\ a^2b^2$, $4a^2b^2$, $23\ a^2b^2$