

7 Class Math Tuition Assignment

Assignment – 12

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Chapter = Rational Number

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MM = 30

Q1. identify the monomials, binomials, trinomials and quadrinomials from the following expressions:

(i) a^2

(ii) $a^2 - b^2$

(iii) $x^3 + y^3 + z^3$

(iv) $x^3 + y^3 + z^3 + 3xyz$

(v) $7 + 5$

(vi) $a b c + 1$

Q2. Identify the like terms in the following algebraic expressions:

(i) $a^2 + b^2 - 2a^2 + c^2 + 4a$

(ii) $3x + 4xy - 2yz + 52zy$

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Q3. Write the coefficient of:

(i) y in $-3y$

(ii) a in $2ab$

(iii) z in $-7xyz$

(iv) p in $-3pqr$

Q4. Evaluate each of the following expressions for $x = -2$, $y = -1$, $z = 3$:

(i) $(x/y) + (y/z) + (z/x)$

(ii) $x^2 + y^2 + z^2 - xy - yz - zx$

Q5. Evaluate each of the following algebraic expressions for $x = 1$, $y = -1$, $z = 2$, $a = -2$, $b = 1$, $c = -2$:

(i) $ax + by + cz$

(ii) $ax^2 + by^2 - cz$

(iii) $axy + byz + cxy$

Q6. Simplify each of the following:

(i) $7x^3y + 9yx^3$

(ii) $12a^2b + 3ba^2$

Q7. Add the following:

(i) $7abc$, $-5abc$, $9abc$, $-8abc$

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(ii) $2x^2y, -4x^2y, 6x^2y, -5x^2y$

Q8. Add the following expressions:

(i) $8a - 6ab + 5b, -6a - ab - 8b$ and $-4a + 2ab + 3b$

(ii) $5x^3 + 7 + 6x - 5x^2, 2x^2 - 8 - 9x, 4x - 2x^2 + 3x^3, 3x^3 - 9x - x^2$ and $x - x^2 - x^3 - 4$

Q9. Add $x^2 + 2xy + y^2$ to the sum of $x^2 - 3y^2$ and $2x^2 - y^2 + 9$.

Q10. Subtract:

(i) $6x^3 - 7x^2 + 5x - 3$ from $4 - 5x + 6x^2 - 8x^3$

(ii) $-x^2 - 3z$ from $5x^2 - y + z + 7$

Q11. From the sum of $3x^2 - 5x + 2$ and $-5x^2 - 8x + 9$ subtract $4x^2 - 7x + 9$.

Q12. Subtract the sum of $13x - 4y + 7z$ and $-6z + 6x + 3y$ from the sum of $6x - 4y - 4z$ and $2x + 4y - 7$.

Q13. From the sum of $x^2 + 3y^2 - 6xy, 2x^2 - y^2 + 8xy, y^2 + 8$ and $x^2 - 3xy$ subtract $-3x^2 + 4y^2 - xy + x - y + 3$.