



## INDIAN SCHOOL NIZWA – WORKSHEET

### MATHEMATICS CH: 10 ALGEBRAIC EXPRESSIONS

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Class: VII Sec: \_\_\_\_

1.	$3m - 4n + 5n + 6m + 3mn$ is a _____ (monomial, binomial, trinomial)
2.	$(-5)^4$ ____ $-5^4$ (Place > or < or = )
3.	The coefficient of $n$ in $5m^2p^2 - 6m^3n + 4m^3p$ _____
4.	Draw tree diagram for the algebraic expression: $4y^3z^2 - 3x^4y^2$
5.	Find the value of expression $2m - 4n + 5$ for $m = 1, n = -2$
6.	Simplify the expression: $3(a^2 - b^2 - c^2) - 2a^2 + b^2$ and find the value for $a = 1, b = 0$ and $c = -1$
7.	If $X = (5^0 - 2^2)$ and $Y = -(3)^2$ , then value of $(X + Y)$ is _____
8.	The exponential form of $y \times y \times y \times m \times m \times m \times n \times n$ is _____.
9.	Find the value of $a^b - b^a$ (Use $a = 2$ & $b = 3$ )
10.	The sum of numerical coefficients of the terms in the expression $7c^2 - 15d^5e^6 - 10c^3d^4$ is _____
11.	Identify an unlike term to $(-15x^2yz^5)$ in the given options. a) $-20x^2z^5y$ b) $15z^5x^2y$ c) $25z^5x^2y$ d) $15z^5x^2y^2$
12.	$2mn - 5pq + 7mn + 15mn - 7pq$ is a _____ (Write the type of polynomial)



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13.	Identify the like terms in the following: $15xy$ , $7x^3y^2$ , $(-20xy)$ , $9z$ , $8x^3y^2$ , $(-8xy)$ , $15z$ , $(-100x^3y^2)$ , $200xy$ .
14.	Write the expressions for the following statements:  a) The quotient of $m$ and $5$ is subtracted from five times of $n$ .  b) Sum of half of a number ' $b$ ' and twice the number ' $c$ '.  c) Product of ' $x$ ' and ' $y$ ' is subtracted from the product of $2x$ and $z$  d) Sum of ' $x$ ' and $5$ is subtracted from the product of $x$ and $5$
15.	Find the value of the expression $5m + 3mn - 8n^2$ , when $m = -1$ and $n = 3$ .
16.	Evaluate $p^3 + q^2 + r^2 + 1$ when $p = 1$ , $q = -1$ and $r = -2$ .
17.	If $a = 18$ , $b = 10$ and $c = 6$ , find the value of $abc$ .
18.	Evaluate $\frac{x^3 + y^2 + z}{3}$ , if $x = -1$ , $y = -2$ , $z = -2$
19.	If $c = 35$ , find the value of $\frac{9}{5}c + 32$
20.	<p>Problem Statement:</p> <p>Your class is organizing a small book fair. The cost of each book is ₹ 50. There's a flat delivery charge of ₹ 20 for orders below ₹ 200.</p> <p>Questions:</p> <p>a) Write an algebraic expression for the total cost of '<math>n</math>' books if the order is below ₹ 200.</p> <p>b) If you buy 5 books, what will be the total cost?</p> <p>c) If 10 students buy 2 books each, and the class wants to share the delivery cost equally, how much will each student pay?</p>