



**INDIAN SCHOOL DARSAIT**  
**DEPARTMENT OF MATHEMATICS**  
**WORKSHEET # 8**



Subject : MATHEMATICS      Topic : ALGEBRAIC EXPRESSIONS      Date of Worksheet : 11/11/2018

Resource Person: Mrs. Indu.P

Name of the Student \_\_\_\_\_ Class & Division: \_\_\_\_\_ Roll Number : \_\_\_\_\_

<b>SECTION A</b> <b>BASIC SKILLS</b>		
1.	Simplify $2xy - 4xy$	
2.	Simplify $4y + 9y - 5y$	
3.	Find $-3 + 5 - 6 + 10$	
4.	Find $-4(9 - 12)$	
5.	Find $-3 \times 4 \times -10 \times 3$	
Sl.No.	<b>SECTION B</b> <b>CHAPTER BASED QUESTIONS</b>	Marks
1.	Identify the terms, their coefficients for each of the following: (i) $7ab^2c - 5cb$ (ii) $x^2 - 3x + 2$	2
2.	Add the following algebraic expressions: (i) $x + 2y - 3z, -3x + y + 2z$ and $2x - 3y + z$ (ii) $17xy - 13yz + 8zx, -5xy + 9yz - 7zx$ and $-7yz - zx + 2xy$ (iii)	2
3.	Subtract the following: (i) $x^2 - x + 1$ from $-2x^3 - x^2 - 3x + 2$ (ii) $a^3 + b^3 + c^3 - 3abc$ from $7abc - 3a^3 + 5b^3 - c^3$ (iii) $pq(4p - 3q + 4r)$ from $pq(2p - 7q + 3r)$	3
4.	What must be added to $10a^2b + 8ab^2 - 8a^3b^3 - b^4$ to get $5a^2b - 6ab^2 - 7a^3b$ .	2
5.	Find the perimeter of a rectangle whose adjacent sides are $3x - 5y - 4z$ and $x - 3y + 5z$ .	2
7.	Obtain the product of the following: (i) $-3xy^3, 2yx^3, 5xy$ (ii) $\frac{1}{8}a^2b^4, \frac{1}{4}ab, a^4b^2, 5$ (ii)	2
8.	Find the following products: (i) $x^3y(x^2 + y^2 - z^2)$ (ii) $(2x^2 + 5y^2)(6x^2 - 15y^2)$ (iii) $(x - 5)(2x^3 - 5x^2 + 3x + 1)$	3



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9.	Simplify $\frac{-3}{2} a (2a - 3b + 4c) + \frac{9}{2}$ and find its value for $a = 1$ , $b = -1$ and $c = -2$	3
10.	Use a suitable identity to determine each of the following: (i) $(2x + 5y)(2x + 5y)$ (ii) $(3x - 4y)(3x - 4y)$ (iii) $(2x + \frac{3}{y})(2x - \frac{3}{y})$	3
11.	Find the following squares by using identities: (i) $(0.5x - 0.4y)^2$ (ii) $(x^2y - yz^2)^2$	3
12.	Using identities evaluate: (i) $197 \times 203$ (ii) $48 \times 56$ (iii) $(1001)^2$	3
13.	Simplify the following : (i) $(4x + 7)^2 - (4x - 7)^2$  (ii) $(x-y)(x+y) + (y-z)(y+z) + (z-x)(z+x)$ .	3
<b>SECTION C</b> <b>HOT QUESTIONS</b>		
1.	Using identities evaluate: $8.56 \times 11.60$ .	3
2.	Evaluate $1.73 \times 1.73 - 0.27 \times 0.27$	3
3.	Find the product $1.5x(10x^2y - 100xy^2)$ .	2
4.	Multiply $\frac{-3}{2}x^2y^3$ by $(2x - y)$ and verify the answer for $x = 1$ and $y = 2$ .	3
5.	Multiply the monomial by the binomial and find the value of each for $x = -1$ , $y = 0.25$ and $z = 0.05$ :  i) $15y^2(2 - 3x)$  ii) $-3x(y^2 + z^2)$	3