

## WORKSHEET

### Module 2

#### CHAPTER 12. ALGEBRAIC EXPRESSIONS

- The number of terms in the expression  $1.2ab - 2.4b + 3.6a$  is  
(a) 1.2 (b) -2.4 (c) 3.6a (d) 3
- What is the numerical coefficient of  $y^2$  in the expression  $2x^2y - 15xy^2 + 7y$  (a) -15x (b) -15 (c) 2 (d) 7
- The expression  $x + y - xy$  is  
(a) Monomial (b) Binomial (c) Trinomial (d) Quadrinomial
- The expression  $xyz$  is  
(a) Monomial polynomial (b) Binomial (c) Trinomial (d) Zero
- From the following expressions  $10pq, 7p, 8q, -p^2q^2, -7pq, -23, ab, 3a, b$ . The like terms are (a)  $3, 7p$  (b)  $10pq, -7pq$  (c)  $ab, 3a, b$  (d)  $10pq, 7p, 8q$
- From the following expressions  $3ab, a^2, b^2, a, 5ab, -2ab, 2a^2$  the three terms are  
(a)  $3ab, 5ab, -2ab$  (b)  $a^2, a, 2a^2$  (c)  $3ab, a^2, b^2$  (d)  $2a^2, a^2, a$
- Sum of  $3m$  and  $2n$  is  
(a)  $5mn$  (b)  $3m+2n$  (c)  $5m$  (d)  $5n$
- Sum of  $xy, x+y$  and  $y+xy$  is  
(a)  $2xy + 2x + y$  (b)  $3xy + 2y$  (c)  $2xy + x + y$  (d)  $2xy + x + 2y$
- The value of  $21b - 32 + 7b - 20b$  is  
(a)  $48b - 32$  (b)  $-8b - 32$  (c)  $8b - 32$  (d)  $28b - 52$
- Subtract  $a - b$  from  $a + b$  the result is  
(a)  $2a + 2b$  (b)  $2a$  (c)  $2b$  (d)  $2a - 2b$
- Subtracting  $-5y^2$  from  $y^2$ , the result is  
(a)  $-4y^2$  (b)  $6y^2$  (c)  $4y^2$  (d)  $-6y^2$
- The value of expression  $5n - 2$ , when  $n = -2$  is  
(a) -12 (b) 8 (c) 1 (d) -8
- The value of expression  $7a - 4b$  for  $a = 3, b = 2$  is  
(a) 13 (b)  $7a - 6b$  (c)  $21a - 8b$  (d) 29

14. When  $x = 0$ ,  $y = -1$ , then the value of expression  $2x + 2y$  is  
 (a) 4 (b) 0 (c) -2 (d) 2
15. Factors of the term  $15x^2$  in the expression  $15x^2 - 13x$  are  
 (a) 15,  $x$ ,  $x$  (b) 15, -13 (c)  $15x^2$ ,  $-13x$  (d) 15
16. Find the value of the following expressions for  $a = 3$ ,  $b = 2$ .  
 (i)  $a + b$   
 (ii)  $7a - 4b$   
 (iii)  $a^2 + 2ab + b^2$   
 (iv)  $a^3 - b^3$
17. Find the value of the following expressions when  $n = -2$ .  
 (i)  $5n - 2$   
 (ii)  $5n^2 + 5n - 2$   
 (iii)  $n^3 + 5n^2 + 5n - 2$
18. Find the value of the following expressions for  $a = 3$ ,  $b = 2$ .  
 (i)  $a + b$  (ii)  $7a - 4b$  (iii)  $a^2 + 2ab + b^2$  (iv)  $a^3 - b^3$
19. What should be the value of  $a$  if the value of  $2x^2 + x - a$  equals to 5, when  $x = 0$ ?
20. Simplify the expression and find its value when  $a = 5$  and  $b = -3$ .  $2(a^2 + ab) + 3 - ab$
21. If  $p = -10$ , find the value of  $p^2 - 2p - 100$
22. Use the given algebraic expression to complete the table of number patterns.

S. No.	Expression	Terms									
		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	...	10 <sup>th</sup>	...	100 <sup>th</sup>	...
(i)	$2n - 1$	1	3	5	7	9	-	19	-	-	-
(ii)	$3n + 2$	2	5	8	11	-	-	-	-	-	-
(iii)	$4n + 1$	5	9	13	17	-	-	-	-	-	-
(iv)	$7n + 20$	27	34	41	48	-	-	-	-	-	-
(v)	$n^2 + 1$	2	5	10	17	-	-	-	-	10,001	-

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