



**INDIAN SCHOOL AL WADI AL KABIR
WORKSHEET 2026-27**

CLASS IX

EXPLORING ALGEBRAIC IDENTITIES_MCQ_WORKSHEET

Questions of 1 mark each

Q.1.	Which of the following is the expansion of $(2x + 3)^2$?			
	A) $4x^2 + 6x + 9$	B) $4x^2 + 12x + 9$	C) $4x^2 + 9x + 9$	D) $2x^2 + 12x + 9$
Q.2.	The value of $(x + 7)(x - 7)$ is:			
	A) $x^2 + 49$	B) $x^2 - 14x + 49$	C) $x^2 - 49$	D) $x^2 + 14x - 49$
Q.3.	If $a + b = 9$ and $ab = 14$, then $a^2 + b^2$ is:			
	A) 53	B) 67	C) 95	D) 109
Q.4.	The expansion of $(3p - 2q)^2$ is:			
	A) $9p^2 - 12pq + 4q^2$	B) $9p^2 - 6pq + 4q^2$	C) $9p^2 + 12pq + 4q^2$	D) $3p^2 - 12pq + 2q^2$
Q.5.	$(x + 3)(x + 5)$ is equal to:			
	A) $x^2 + 15$	B) $x^2 + 8x + 15$	C) $x^2 + 2x + 15$	D) $x^2 + 15x + 8$
Q.6.	The possible expressions for the length and breadth of rectangles whose areas is $64p^2 - 81q^2$ are:			
	A) $L = 8p - 9q$ $B = 8p + 9q$	B) $L = 8p + 9q$ $B = 8p + 9q$	C) $L = 8p + 7q$ $B = 8p + 9q$	D) $L = 8p + 9q$ $B = 8p + 6q$
Q.7.	Using an algebraic identity, 99^2 is:			
	A) 9801	B) 9901	C) 9991	D) 10001
Q.8.	If $3 + 5 - 8 = 0$, then the value of $(3)^3 + (5)^3 - (8)^3$ is			
	A) 260	B) -360	C) 140	D) -160
Q.9.	The factorisation of $x^2 - 25$ is:			
	A) $(x - 5)^2$	B) $(x + 5)^2$	C) $(x - 5)(x + 5)$	D) $(x - 25)(x + 1)$
Q.10.	The factorised form of $x^3 + 8$ is:			
	A) $(x + 2)(x^2 + 2x + 4)$	B) $(x + 2)(x^2 - 2x + 4)$	C) $(x - 2)(x^2 + 2x + 4)$	D) $(x + 8)(x^2 - 8x + 8)$
Q.11.	The expansion of $(x + 2)^3$ is:			
	A) $x^3 + 6x^2 + 12x + 8$	B) $x^3 + 4x^2 + 8x + 8$	C) $x^3 + 6x^2 + 6x + 8$	D) $x^3 + 2x^2 + 4x + 8$
Q.12.	If $a - b = 5$ and $ab = 6$, then $a^2 + b^2$ is:			
	A) 19	B) 25	C) 31	D) 37
Q.13.	Assertion (A): $(x + 5)^2 = x^2 + 10x + 25$. Reason (R): $(x + a)^2 = x^2 + 2ax + a^2$..			

Q.14.	Assertion (A): $(a + b)(a - b) = a^2 + b^2$. Reason (R): $(a + b)(a - b) = a^2 - b^2$.						
Q.15.	Assertion (A): $a^3 + b^3 = (a + b)(a^2 - ab + b^2)$. Reason (R): For $a = 2$ and $b = 1$, both sides have value 9.						
ANSWER KEY							
Q.1.	B $4x^2 + 12x + 9$	Q.5.	B $x^2 + 8x + 15$	Q.9.	C $(x - 5)(x + 5)$	Q.13.	A
Q.2.	C $x^2 - 49$	Q.6.	A $L = 8p - 9q$ B $= 8p + 9q$	Q.10.	B $(x + 2)(x^2 - 2x + 4)$	Q.14.	C
Q.3.	A 53	Q.7.	A 9801	Q.11.	A $x^3 + 6x^2 + 12x + 8$	Q.15.	B
Q.4.	A $9p^2 - 12pq + 4q^2$	Q.8.	B) -360	Q.12.	D 37		