INDIAN SCHOOL AL WADI AL KABIR
Class VIII, Mathematics
WORKSHEET-2 (2025-26)
Factorization

Multiple Choice Questions

Q.1.	The common factor of $17x - 34$							
	A	2	B	$17x$	C	34	D	17
Q.2.	The factors of $x^2 + 5x + 6$ is:							
	A	$(x+6)(x-1)$	B	$(x+2)(x+3)$	C	$(x-2)(x-3)$	D	$(x+1)(x+6)$
Q.3.	The factorized form of $4x^2$–9 is:							
	A	$(2x-3)(2x+3)$	B	$(4x-3)(x+3)$	C	$(2x-9)(2x+1)$	D	$(4x-9)x$
Q.4.	The area of a rectangular garden is given by$x^2 + 7x + 10$ sq m. If the length is $(x+5)$ cm, then the breadth of the garden is:							
	A	$(x+7)\ cm$	B	$(x^2+5)\ cm$	C	$(x+10)\ cm$	D	$(x+2)\ cm$
Q.5.	The product of two consecutive integers is $x^2 - x - 12$. Find the two integers.							
	A	$(x-6)\&(x+2)$	B	$(x-11)\&(x+1)$	C	$(x-4)\ \&\ (x+3)$	D	$(x-12)\&(x-1)$
Q.6.	The cost of buying $x+3$ notebooks is $x^2 + 11x + 24$ rupees. Find the cost of one notebook.							
	A	$x+8$	B	$x+5$	C	$x+4$	D	$x+6$
Q.7.	The area of a square is represented by $(9a^2 - 42a + 49)cm^2$. Find the side of the square.							
	A	$(9a-7)cm$	B	$(3a-7)cm$	C	$(3a+7)cm$	D	$(9a+7)cm$
Q.8.	The difference of squares of two numbers is $16y^2 - 1$. Find the two numbers.							
	A	$16y, 1y$	B	$4y-1, 1-4y$	C	$4y-1\ , 4y+1$	D	$15y^2$
Q.9	Find the factors: $p^2q + pq^2 + 2p + 2q$							
	A	$(pq+2)(p+q)$	B	$(pq+2)(p+q)$	C	$(pq+2)(p+q)$	D	$(pq+2)(p+q)$
Q10	The value of $(7a^2 + 14a) \div (a+2)$							
	A	$7(a-2)$	B	$(a+2)$	C	$(7a+2)$	D	$7a$

Q11	**CASE STUDY-1:**   Rahul is a fruit seller. He sells apples in his shop. The total cost of buying some apples is given by: ₹ $(x^2 + 9x + 20)$. 1. Factorize the expression. 2. If the number of apples is $x + 5$, find the cost of one apple. 3. Find the total cost when $x = 3$ 4. If he gives a discount of 2 rupees per apple, write the new expression for total cost.
Q12	**CASE STUDY-1:**  A classroom floor is rectangular with its area $a^2 + 11a + 18$ sq. m. 1) Factorize and find the length and breadth of the classroom. 2) If $a = 2$, find the area of the classroom. 3) If tiles cost ₹50 per sq. m, find the total cost of flooring when a=2. 4) Calculate the perimeter of the classroom for $a = 2$

Answers	**1**	D	**2**	B	**3**	A	**4**	D
	5	C	**6**	A	**7**	B	**8**	C
	9	A	**10**	D	**11**	1)$(x + 4)(x + 5)$ 2) $(x + 4)$ 3) ₹56 4)₹ $(x^2 + 7x + 10)$	**12**	1)$(a + 2)(a + 9)$ 2)$44\ sq.m$ 3)₹ 2200 4) $30\ m$