1. The value of $(a + b)^2 + (a - b)^2$ is

   (a) $2a + 2b$
   (b) $2a - 2b$
   (c) $2a^2 + 2b^2$
   (d) $2a^2 - 2b^2$

2. Product of $6a^2 - 7b + 5ab$ and $2ab$ is

   (a) $12a^3b - 14ab^2 + 10ab$

   (b) $12a^3b - 14ab^2 + 10a^2b^2$

   (c) $6a^2 - 7b + 7ab$

   (d) $12a^2b - 7ab^2 + 10ab$

3. Square of $3x - 4y$ is

   (a) $9x^2 - 16y^2$

   (b) $6x^2 - 8y^2$

   (c) $9x^2 + 16y^2 + 24xy$

   (d) $9x^2 + 16y^2 - 24xy$

4. If $ab = 6$ and $a + b = 5$ then the value of $(a^2 + b^2)$ is

   (a) 11

   (b) 12

   (c) 13

   (d) 16

5. The product of $(m^3 + 2)(m^3 - 2)$ is

   a) $2m^3 - 4$
   b) $m^9 - 4$
   c) $m^6 - 4$
   d) $m^6 + 4$

6. The value of $(a + b)^2 - (a - b)^2$ is

   a) 4ab
   b) -4ab
   c) $2a^2$
   d) $2b^2$

7. The product of a monomial and a binomial is

   a) Monomial
   b) Trinomial
   c) Binomial
   d) None of these

8. Area of Rectangle with length = $4ab$ and breadth = $6b^2$ is

   a) $10ab^3$
   b) $24ab^2$
   c) $24a^2b$
   d) $24ab^3$

9. The volume of a cuboid with length = $2ab$, breadth = $2bc$ and height = $2ac$ is

   a) $8abc$
   b) $8abc$
   c) $8a^2b^2c^2$
   d) $8a^2bc$

10 The square of $(3x - 4y)$ is

a) $9x^2 - 16y^2$ b) $3x^2 - 4y^2$ c) $9x^2 + 16y^2 + 24xy$

d) $9x^2 + 16y^2 - 24xy$

11 If $3x - 7y = 10$ and $xy = -1$, then the value of $9x^2 + 49y^2$ is

a) 58   b) 142   c) 104   d) -104

12 If $x + \frac{1}{x} = 5$, then the value of $x^4 + \frac{1}{x^4}$ is

a) 144   b) 400   c) 236   d) 527

CLASS VIII

CHAPTER 9 - ALGEBRAIC EXPRESSIONS AND IDENTITIES

1. Multiply $x^2 y^2 z^2$ by $(xy - yz + zx)$.

2. Subtract $b(b^2 + b - 7) + 5$ from $3b^2 - 8$ and find the value of expression obtained for $b = -3$.

3. Find the area of a rectangular field whose dimensions are $3x^2 y + y^2$ and $\frac{5}{8} x^2$.

4. Find the product : $\frac{3}{8} xyz \times \left(-\frac{4}{7} yz \right) \times \left(-\frac{7}{11} xz \right)$

5. Find the product : $(x + y)(x^2 - xy + y^2)$

6. Find the product $(3a + b)(2a + b)(a - b)$

7. Find the value of $(4x - 5)(4x + 1) - (4x + 5)(4x - 1)$