

INTERNATIONAL INDIAN SCHOOL
BURAIDAH

Worksheet For The Academic Year 2023-24

CLASS: VIII SUBJECT: Mathematics DATE: 29/10/2023
LESSON-9 Algebraic Expressions & Identities

- 1) Write the coefficient of : $-2xy$, $5x^2$, xyz
- 2) $7xy - 5x$ has _____ terms in it.
- 3) The numerical factor of a term is called its _____.
- 4) An expression having only one term is called a _____.
- 5) Add:
 - a) $9xy - 3yz + 2zx$ and $2xz + 9xy - 4y$
 - b) $7xy + 5yz - 3xz$ and $4yz + 9xz - 4xy$
- 6) Subtract:
 - a) $6x^2 - 5y^2 + 7y - 4$ and $8x^2 - 5xy + 9y^2 + 6x - 4y$
 - b) $5x^2 - 4y^2 + 6y - 3$ and $7x^2 - 4xy + 8y^2 + 5x - 3y$
- 7) Find the product of:
 - a) $5x$ and $-4xyz$
 - b) $2x$, $5y$ and $7z$
 - c) $4xy$, $5x^2y^2$ and $6x^3y^3$
 - d) $-3x$ and $(5y+2)$
- 8) Simplify and evaluate:
 - a) $x(x - 3) + 2$ if $x = 1$
 - b) $3y(2y-7) - 3(y-4) - 63$ if $y = -2$
- 9) Add:
 $5m(3 - m)$ and $6m^2 - 13m$
- 10) Subtract:
 $3pq(p - q)$ from $2pq(p + q)$
- 11) Find the product of:
 - a) $(3a + 4b)$ and $(2a + 3b)$
 - b) $(x - 4)$ and $(2x + 3)$
 - c) $(x - y)$ and $(3x + 5y)$
 - d) $(a + 7)$ and $(b - 5)$
 - e) $(a^2 + 2b^2)$ and $(5a - 3b)$
- 12) Simplify:
 - a) $(a + 7)(a^2 + 3a + 5)$
 - b) $(a + b)(2a - 3b + c) - (2a - 3b)c$
- 13) Find the area of a rectangle whose length and breadth are respectively $4mn$ and $3np$.
- 14) Find the volume of a rectangular box whose dimensions are $2xy$, x^2y and $2xy^2$.
- 15) Simplify : $(a + b + c)(a - b - c)$