INTERNATIONAL INDIAN SCHOOL BURAIDAH

Worksheet for the Academic Year 2024-25

CLASS: 7 / SUBJECT: Maths

LESSON : 12 Algebraic Expressions

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1. Identify the monomials and binomials in the following:
   a) 4xy b) -a+8 c) p^2 d) xy+4x

2. Write down the coefficient of x in each of the following:-
a) -17x
b) -9xy
c) (-5/2)x + 7
d) $15xy^2$

3. Identify the like terms in each of the following algebraic expressions.
a) 3x+4y-z-4x+3xy
b) $a^2 + b^2 - 2a^2 + c^2 + 4a$+8$b^2$
c) $6x^2y - 8xy^2 + 5xy + 2yx^2$

4. Add the following:-
a) $x^2, 4x^2, -7x^2$
b) $a^2 + 2ab + b^2, a^2 - 2ab + b^2, a^2 - b^2$
c) 18a-10b,-2a+12b,-10a+6b

5. Subtract:
a) 2a+3b from 4a+2b-4
b) $13a^2 - 5a\ from - 10a - 6a^2$
c) $x^2y - 6xy^2 + 4xy\ from\ 2x^2y + 3xy^2 - xy$

6. If a=3,b=1,find the value of
a) $a^2 + 2b^2 - 4$
b) $a^2b + ab^2 + ab + 1$

7. Simplify and find the value if x=1,y=0 and z=-2.
a) 2x-7+y-x
b) x^2-z+3-4y+3(z-1)
c) 3(y+2)+4-x+y
d) $x^2 - 3y + z - 4 + 2y - 4z$

8. What should be the value of p, if the value of $3x^2$-2x+p equals 3,when x=1.
9. Simplify 3(2x+1)+ 4x +15 when x=-1.
10. Find the value of equation $3x^2$-4x+8, when x=8.

Answers

2. a) -17 b)-9y c)-5/2 d) $15y^2$
3. a)(3x,-4x) b)(a^2,$-2a^2$),(b^2,$8b^2$) c) ($6x^2y$,$2yx^2$)
4. a)$-2x^2$ b)$3a^2+b^2$ c)6a+8b
5. a)2a-b-4 b)$-5a-19a^2$ c)x^2y+9xy^2-5xy
6. a) 7 b)16
7. a)-6 b)-3 c)9 d)3
8. 2
9. 8
10. 168

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