

SUBJECT: MATHEMATICS, CLASS: VII  
CHAPTER: 6 (ALGEBRAIC EXPRESSIONS)

WORK SHEET (BASIC)

(1 Mark)

1. Which one of the following is a Monomial.

i)  $4y$ .   ii)  $3x+2$    iii)  $2xz+y$ .   iv)  $5x+6y$

2.  $X+X+X+X=$  \_\_\_\_\_

i) 4.   ii)  $4X$    iii)  $3X$ .   iv) none of these

3. A Binomial has \_\_\_\_\_ terms.

4.  $Z \times 3Z =$  \_\_\_\_\_

5. Write any 2 examples of Monomial.

6. Write the coefficient in the expression,  $3x$

7. Write the coefficients of  $12xy$ .

8. Which one of the following is not a binomial.

i)  $4y$ .   ii)  $3x+2$    iii)  $2xz+y$ .   iv)  $5x+6y$

9.  $x+y+2x+y=$  \_\_\_\_\_.

10. What do you mean by binomial.

(2 marks)

11. Find the product,  $4X \times 3Y \times 5$ .

12. Find the product,  $(3x+2)(5)$

13.  $4.1X \times 3.4Y \times 5.6Z$  find the product.

14. Write the difference between monomial and binomial with examples?

15. What do you mean by degree of Polynomial? write the degree of  $2x+y$ .

16. Multiply the coefficients of the expression  $4x+3y-2z$ .

17. Add the coefficients of the expression,  $-2x+3y-10$ .

18. what do you mean by zero of a Polynomial.

19. Find the product of  $4x \times 0 \times 24y$ .

20. Write types of Polynomial.

(3mark)

21. Solve the following  $(3x+7) \cdot (2y+1)$ .

22. Find the product of  $(1+x+y) \cdot (2x+y)$ .

23. Solve and verify your answer with these values;  $x=1, y=-2$

$(13x+7) \cdot (2y-1)$

24. Find the perimeter of the square field whose one side is  $5z$  unit.

25. Write the HCF of following monomial,  $24xz, 3x, 12yx$ .

26. Factorise.  $2x + 30yx$ .

27. Find the area of the rectangle whose length is 4 times of its breadth, where breadth is  $3a$  unit.

(4 marks)

28. Factorise the expression:  $x + 3x + x^2$

19. Factorise the expression:  $21x + 3xy + 6x^2$

20. Factorise the expression:  $x^2 + ax + ab + b^2$

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SUBJECT: MATHEMATICS , CLASS: VII  
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WORKSHEET (STANDARD)

(1 MARK)

1. What is the power of X in the product  $X \times X$ .

i) 4.      ii) 2.      iii) 3.      iv) none of these

2. Which one of the following is a binomial?

i)  $3x+5x$     ii)  $(5x)(3y)$     iii)  $5x+1$     iv)  $x+2x+3x$

3.  $Z \times (3+Z) =$  \_\_\_\_\_

4. Write the definition of Binomial with example.

5.  $3x + 5xy + 7x^2$ , write the coefficients in this expression.

6. Which one of the following is not a binomial.

i)  $4y+3x^2$ .    ii)  $3x+2x$     iii)  $2xz+y$ .    iv)  $5x+6$

7.  $2.3x \times 1.1x \times 2.5x$ , what is coefficient of the product.

ii) 4.325      ii) 6.325      iii) 3.325      iv) none of these

8. A monomial with power zero having \_\_\_\_\_ terms.

9.  $Z \times (3+4Z) =$  \_\_\_\_\_

10. Write the definition of Polynomial with example.

(2 MARKS)

11. Find the product  $(3x+2)(5+2x)$ .

12.  $3x + 5yz + 7x^2$ , write the product of coefficients in this expression.

13. Find the product  $(4.1X + 5.6Y)(1.2XY - 3Y)$  and write all the coefficients.

14. Find the product  $(3x+2)(5+2xy+x)$  and write number of terms after multiplication.

(3MARKS)

15. Solve  $(3x-7z)(2y-1)$  and verify your answer for  $x=1, y=-2, z=2$ .

16. Find the product  $(1+x^2+y)(2x+z)$ , and verify the answer for  $x=1, y=3, z=-2$

17. Find the product and write the degree of the polynomial  $(1+x+y)(2x+y)$

(4MARKS)

18. Factorise the expression:  $x^2+ax+ab+bx-(a+x)$

19. Find the area of a triangle whose height is  $6x$  unit & base is  $14y$  unit.

20. Factorise the polynomial:  $X^4 - 16$ .

SUBJECT: MATHEMATICS , CLASS: VII  
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WORKSHEET (ADVANCED)

(1 MARK)

1. Which one of the following is a binomial.

- i)  $4y+3x^2$ .   ii)  $3x+2x$    iii)  $2xzxyz$ .   iv)  $5\sqrt{x+6}$

2. One side of a square field is  $(x+4)$  unit. Find the perimeter of the field.

- i)  $4+x$  unit   ii)  $2(x+4)$  unit   iii) 16 unit   iv) none of these

3. A Polynomial with power zero having \_\_\_\_\_ terms.

4. The HCF of  $3z$ ,  $12zx$ ,  $42xy$  is \_\_\_\_\_.

5. Write the definition of Polynomial with example, Give 2 examples that are not polynomials.

6., write the product of variables in the expression  $3x+5yz+7x^2$

(2 MARKS)

7. The dimensions of a rectangular field are  $(4.1X + 5.6Y)$ ,  $(X+1.5Z)$  units. Find the area of that field.

8. Find the product,  $(3x+12y^2)(5+2xy+x)$

(3 MARKS)

9. Solve and verify  $(3x-7z) \cdot (2y-x-1)$  with these values,  $x=0.1, y=-2.5, z=2$ .

(4 MARKS)

10. Factorise the expression.

$$X^2 + aX + ab + bX - (a+X)(X+XY)$$

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