EduSahara™ Assignment

Name : Algebraic Expression Concepts

Chapter : Fundamental Concepts of Algebra

Grade : ICSE Grade VI

1. The degree of the polynomial $(-4c+9)$ is

   (i) 2 (ii) 0 (iii) (-1) (iv) 1 (v) 3

2. The degree of the polynomial $(-s^2-8s-6)$ is

   (i) 2 (ii) (-1) (iii) 5 (iv) 1 (v) 3

3. The degree of the polynomial $(9v^3+6v^2-6v)$ is

   (i) 4 (ii) 2 (iii) 6 (iv) 1 (v) 3

4. The degree of the polynomial $(5b^4-6b^3+3b^2+9b-7)$ is

   (i) 1 (ii) 4 (iii) 5 (iv) 3 (v) 7

5. The constant term in polynomial $(5q+1)$ is

   (i) 0 (ii) -2 (iii) 2 (iv) 1 (v) 3

6. The coefficient of term p in polynomial $(-3p^2+p-6)$ is

   (i) 1 (ii) 4 (iii) -2 (iv) 2 (v) 0

7. The constant term in polynomial $(-7w^3+8w^2+5w+7)$ is

   (i) 8 (ii) 7 (iii) 6 (iv) 10 (v) 5

8. The coefficient of term c^2 in polynomial $(4c^4-2c^3-3c^2+2c+8)$ is

   (i) -3 (ii) -2 (iii) -6 (iv) -1 (v) -4

9. Which of the following algebraic expressions is a monomial?

   (i) $(-3j^4-6j^3+2j^2-2j+2)$ (ii) $(-8j^4-j^3-2j^2+2j-4)$ (iii) $(3j^4+6j^2-7j)$ (iv) $(-8j^4+8j^3)$ (v) $(-3j^2)$

10. Which of the following algebraic expressions is a binomial?

    (i) $(6j^4-9j^3-j^2+4j+2)$ (ii) $(-2j^2+9j-3)$ (iii) $(5j^4+2)$ (iv) $(-4j^4-8j^3-8j^2-3j-3)$ (v) $(-4j^3)$

11. Which of the following algebraic expressions is a trinomial?

    (i) $(-b^3+3b^2)$ (ii) $(-9b^4)$ (iii) $(8b^4-9b^3-9b^2+7b-1)$ (iv) (b^4-5b^3-4b)

    (v) $(-6b^4-6b^3-9b^2+2b-1)$

12. Which of the following algebraic expressions is a constant polynomial?

    (i) $9c^4$ (ii) $(6c^4+2c^3-5c^2+3c-7)$ (iii) $(-5c^3+7c+3)$ (iv) (-6) (v) $(-6c^3+3)$

13. Which of the following algebraic expressions is a zero polynomial?

(i) $5a$ (ii) $(-3a^4+3a^3+4a^2+9a-7)$ (iii) $(2a^4-3a^2)$ (iv) $(6a^3-5a^2+3a)$ (v) 0

14. Which of the following terms is a like term of $(-5j^3)$?

(i) $(-2j^3)$ (ii) 5 (iii) $(-5j^4)$ (iv) $(-3j)$ (v) $2j^2$

15. Which of the following terms is a like term of $(-8b^3)$?

(i) $7b^3$ (ii) $(-2b^2)$ (iii) $(-b)$ (iv) $3b^4$ (v) (-8)

16. Which of the following terms is a like term of 9 ?

(i) s (ii) $7s^2$ (iii) $(-5s^3)$ (iv) $4s^4$ (v) (-8)

17. The degree of polynomial $(-6ij-8i-12j-8)$ is

(i) 1 (ii) 5 (iii) 3 (iv) 0 (v) 2

18. The degree of polynomial $(-8fg^2+6fg-9f+8g^2)$ is

(i) 2 (ii) 5 (iii) 3 (iv) 4 (v) 1

19. The degree of polynomial $(4p^2q^2r+4p^2-6pqr+8pq+8q^2r)$ is

(i) 2 (ii) 6 (iii) 8 (iv) 5 (v) 4

20. The degree of polynomial $(-4p^3q^2r-3p^3r^2+3p^3-4p^2q^3-9p^2r^3+8pq^3r-4q^3r)$ is

(i) 6 (ii) 7 (iii) 4 (iv) 5 (v) 8

21. The coefficient of term e in polynomial $(-2de-d-6e-16)$ is

(i) -5 (ii) -8 (iii) -7 (iv) -6 (v) -3

22. The coefficient of term j^2 in polynomial $(8j^2k^2-5j^2+5k^2-5)$ is

(i) -5 (ii) -7 (iii) -3 (iv) -6 (v) -4

23. The coefficient of term c^2d^2e in polynomial $(4c^2d^2e+7c^2de-7c^2e^2+8d^2-8e)$ is

(i) 7 (ii) 4 (iii) 3 (iv) 5 (v) 1

24. The coefficient of term f^2 in polynomial $(6e^3f^3g^3+5ef^3g^3+3ef^3g^2+2f^3g^3+4f^2g^2-f^2+9)$ is

(i) -2 (ii) 1 (iii) 0 (iv) -1 (v) -4

25. Which of the following algebraic expressions is a monomial?

(i) $9gh^3i^2$ (ii) $(-9g^3h^2i^3-4gh^3i^2+3gh^2i^2-4hi)$ (iii) $(-5g^2i^2-5gh^2i^2-9h^2i^2+5hi^3)$

(iv) $(-5h^3-8i^2)$ (v) $(9g^3h^2i^3-8g^2h-3gh^2i^2)$

26. Which of the following algebraic expressions is a binomial?

(i) $(-9v^3w^2x^3-7w^2x^3+8w^2)$ (ii) $(w^3x+7wx^3+5wx^2-8)$ (iii) $(-vwx^3+8w^3x)$ (iv) $3vw^3x^2$

(v) $(5v^2w^3x^2-5v^2wx^3-5v^2-6x^3)$

27. Which of the following algebraic expressions is a trinomial?

(i) $(-8r^2st^3-6r^2t^2-3rst-7s^3)$ (ii) $(-rs^2t^2)$ (iii) $(8r^3s^3t^3-8rs^2t^3+4s^3+6t^2)$ (iv) $(5r^3st^3-9r)$

(v) $(-4r^2s^2+4rt^3-6s^2t)$

28. Which of the following algebraic expressions is a constant polynomial?

(i) $(-3f^3g^3h^2-6f^2g^3h^3+6f^2g+g^3)$ (ii) $(-9f^3h^3-6f^2)$ (iii) (-3) (iv) f^3gh^3 (v) $(8f^3h-8f^2h^2-4g^3h)$

29. Which of the following is a like term of $(-r^2)$?

(i) $(-9r^2s^2)$ (ii) $(-2r^2)$ (iii) 3 (iv) $9s^2$ (v) $3rs^2$

30. Which of the following is a like term of $(-7jk)$?

(i) $(-7j^2k^2l)$ (ii) $8jk$ (iii) $8jl^2$ (iv) $5kl$ (v) $7jk^2$

31. Which of the following algebraic expressions is a zero polynomial?

(i) $(7q^3r^2s^3+6q^2r^2s^3-4qr^2s^3)$ (ii) $(-9q^3s-6qr^3+qrs^3+8r^3)$ (iii) $(5qs^2+s)$ (iv) 0 (v) $5q^2r^2s^3$

32. Which of the following is a like term of $(-5oq)$?

(i) $(-7o)$ (ii) $(-opq)$ (iii) $2oq$ (iv) $8p$ (v) (-8)

33. Which of the following is a like term of $(-3jk^2i^2)$?

(i) $4ijk^2$ (ii) $(-i^2j^2k^2)$ (iii) $2ijk$ (iv) $(-6i^2j^2k)$ (v) $7i^2jk^2$

34. Which of the following is a like term of ij^2h^2?

(i) $3h^2ij$ (ii) $(-9hi^2j)$ (iii) $4h^2i^2j$ (iv) $6h^2i^2j^2$ (v) $6h^2ij^2$

35. Which of the following are polynomials?

a) $(x+y)$

b) $x^2+\frac{1}{x^2}$

c) $\frac{(x+y)}{(x-y)}$

d) x^2

e) $x+\frac{1}{x}$

(i) {e,b,a} (ii) {c,d} (iii) {c,d,a} (iv) {b,a} (v) {a,d}

36. Which of the following are not polynomials?

a) $x+\frac{1}{x}$

b) $\frac{(6x+2y)}{(4x-8y)}$

c) $81x^2$

d) $(6x+2y)$

e) $(24x^2-40xy-16y^2)$

(i) {c,a} (ii) {a,b} (iii) {d,b} (iv) {d,b,a} (v) {e,c,a}

37. Which of the following are not polynomials?

a) $\sqrt{x}$

b) $(4x-11y)$

c) $4x^2+\frac{1}{4x^2}$

d) $(3x+7y)$

e) $4x^2$

(i) {d,c,a} (ii) {d,c} (iii) {b,a} (iv) {e,b,a} (v) {a,c}

38. Which of the following are not polynomials?

a) $(24x^2-38xy-77y^2)$

b) $\sqrt{x}$

c) $(4x-11y)$

d) $144x^2$

e) $\frac{(6x+7y)}{(4x-11y)}$

(i) {b,e} (ii) {a,b} (iii) {c,e} (iv) {d,a,b} (v) {c,e,b}

39. Which of the following is a factor of $36x^4y^2z^5$?

(i) $4x^2y^2z^6$ (ii) $4x^2y^2z^4$ (iii) $4x^4y^2z^6$ (iv) $x^5y^2z^4$ (v) $4x^2y^3z^4$

40. Which of the following is not a factor of $24x^3y^5z^2$?

(i) $12x^3y^4z^2$ (ii) $12x^2y^5z^2$ (iii) $12x^2y^3$ (iv) $12x^4y^6z^2$ (v) $12x^3y^5z$

41. Which of the following is a factor of $(3x^2+y^4z^5)$?

(i) no factors (ii) $3y^4$ (iii) $3x^2$ (iv) $3xz^2$ (v) y^4z^5

42. Which of the following is an irreducible factor of $17x^5yz^3$?

(i) x^5yz^2 (ii) yz (iii) xz^2 (iv) x (v) x^5y

43. Which of the following is not an irreducible factor of (x^2y+xy^2+xy) ?

(i) xy (ii) x (iii) $(x+y+1)$ (iv) y

44. Which of the following are polynomials?

a) $x+\frac{1}{x}$

b) $x^2+\frac{1}{x^2}$

c) $\frac{(x+y)}{(x-y)}$

d) x^2

e) $(x+y)$

(i) {b,e} (ii) {b,e,d} (iii) {a,d} (iv) {d,e} (v) {c,a,d}

45. Which of the following are not polynomials?

a) $x+\frac{1}{x}$

b) $36x^2$

c) $(50x^2-65xy-132y^2)$

d) $\frac{(10x+11y)}{(5x-12y)}$

e) $(10x+11y)$

(i) {b,a} (ii) {a,d} (iii) {e,b,a} (iv) {c,d} (v) {c,d,a}

46. Which of the following are not polynomials?

a) $x^2+\frac{1}{x^2}$

b) $\sqrt{x}$

c) $(4x-8y)$

d) $(4x+3y)$

e) x^2

(i) {e,c,a} (ii) {a,b} (iii) {d,b} (iv) {c,a} (v) {d,b,a}

47. Which of the following are not polynomials?

a) $\sqrt{x}$

b) $(12x-5y)$

c) $49x^2$

d) $\frac{(6x+7y)}{(12x-5y)}$

e) $(72x^2+54xy-35y^2)$

(i) {c,d,a} (ii) {a,d} (iii) {b,a} (iv) {e,b,a} (v) {c,d}

48. Which of the following is a factor of $10x^3y^2z^4$?

(i) $10x^2y^3$ (ii) $10x^2$ (iii) $10x^2z^5$ (iv) $10x^3z^5$ (v) x^4

49. Which of the following is not a factor of $16x^5y^3z$?

(i) x^5y^2z (ii) x^6y^4z (iii) x^4y^3z (iv) x^2y^2z (v) x^5y^3

50. Which of the following is a factor of $(5x^2+y^3z^4)$?

(i) $5x^2$ (ii) $5xz^4$ (iii) $5y^2$ (iv) y^3z^4 (v) no factors

Assignment Key

1) (iv)	2) (i)	3) (v)	4) (ii)	5) (iv)	6) (i)
7) (ii)	8) (i)	9) (v)	10) (iii)	11) (iv)	12) (iv)
13) (v)	14) (i)	15) (i)	16) (v)	17) (v)	18) (iii)
19) (iv)	20) (i)	21) (iv)	22) (i)	23) (ii)	24) (iv)
25) (i)	26) (iii)	27) (v)	28) (iii)	29) (ii)	30) (ii)
31) (iv)	32) (iii)	33) (v)	34) (v)	35) (v)	36) (ii)
37) (v)	38) (i)	39) (ii)	40) (iv)	41) (i)	42) (iv)
43) (i)	44) (iv)	45) (ii)	46) (ii)	47) (ii)	48) (ii)
49) (ii)	50) (v)				