

EduSahara™ Learning Center Assignment**Grade : Class IX, SSC****Chapter : Polynomials and Factorisation****Name : Polynomial Concepts**

1. Which of the following are polynomials?

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

b) x^2

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

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

e) $(x + y)$

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

2. Which of the following are not polynomials?

a) $(5x + 9y)$

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

c) $\frac{(5x + 9y)}{(6x - 8y)}$

d) $100x^2$

e) $(30x^2 + 14xy - 72y^2)$

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

3. Which of the following are not polynomials?

a) $100x^2 + \frac{1}{100x^2}$

b) $(11x + 12y)$

c) $100x^2$

d) $\sqrt{x}$

e) $(12x - 11y)$

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

4. Which of the following are not polynomials?

a) $\frac{(8x + 7y)}{(5x - 4y)}$

b) $16x^2$

c) $(40x^2 + 3xy - 28y^2)$

d) $\sqrt{x}$

e) $(5x - 4y)$

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

5. Which of the following are polynomials?

a) x^2

b) $(x + y)$

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

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

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

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

6. Which of the following are not polynomials?

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

b) $25x^2$

c) $(7x^2 - 21xy - 28y^2)$

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

$$(x - 4y)$$

e) $(7x + 7y)$

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

7. Which of the following are not polynomials?

a) $49x^2$

b) $(11x - 3y)$

c) $49x^2 + \frac{1}{49x^2}$

d) $(11x + 9y)$

e) $\sqrt{x}$

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

8. Which of the following are not polynomials?

a) $(7x - 6y)$

b) $\sqrt{x}$

c) $(7x^2 + 36xy - 36y^2)$

d) $36x^2$

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

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

9. The degree of the polynomial $(-2a + 2)$ is

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

10. The degree of the polynomial $(2a^2 - 3a + 4)$ is

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

11. The degree of the polynomial $(2c^4 + 9c^3 + 2c)$ is

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

12.

The degree of the polynomial $(-9j^5 - 4j^4 - 8j^3 - j^2 + 8j)$ is

- (i) 4 (ii) 7 (iii) 5 (iv) 2 (v) 6
-

13. The constant term in polynomial $(-9w + 8)$ is

- (i) 7 (ii) 9 (iii) 6 (iv) 10 (v) 8
-

14. The coefficient of term h^2 in polynomial $(2h^2 + 8h + 9)$ is

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

15. The constant term in polynomial $(-9b^3 + 3b^2 - 6b - 5)$ is

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

16. The constant term in polynomial $(-2g^4 + 8g^3 + 2g^2 - 7g + 5)$ is

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

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

- (i) $(-6m^4 + 8m^3 + 6m)$
- (ii) $(5m^4 + 5m^3 - 5m^2 + m + 5)$
- (iii) $(5m^4 + 6m^3 - 7m^2 - m + 4)$
- (iv) $(6m^4 - 3m^3)$
- (v) $6m^2$
-

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

- (i) $(7n^4 + 6n^3 + 6n^2 + 4n + 9)$
- (ii) $(n^2 + 3)$
- (iii) $(-3n^3)$
- (iv) $(6n^4 - 4n^3 - 5n^2 + 5n - 1)$
- (v) $(-7n^3 - n - 2)$
-

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

(i) $(5s^2 + 8s - 3)$

(ii) $(-8s^4 - 8s^3 + 4s^2 + 4s + 6)$

(iii) $(2s^3 - 7s)$

(iv) $(5s^4 - 6s^3 - 6s^2 + 8s - 2)$

(v) $(-6s^2)$

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

(i) $4g$

(ii) $(-3g^4 + 5)$

(iii) $(6g^4 + 9g^3 - 9g^2 + 2g - 2)$

(iv) 7

(v) $(6g^4 - 6g^3 - 2g^2)$

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

(i) $(2p^3 + p^2 - 3)$

(ii) $3p^2$

(iii) 0

(iv) $(6p^4 - 3p^3 + 5p^2 + 3p + 2)$

(v) $(5p^2 - 5)$

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

(i) $(3n^5 + 5n^4 + 6n^3 - 9n^2 - 1)$

(ii) $(-7n - 2)$

(iii) $(-9n^2 + 4n + 8)$

(iv) 2

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

23. Which of the following algebraic expressions is a linear polynomial?

(i) $(5m + 5)$

(ii) $(m^5 - 9m^4 - 5m^2 - 4m - 1)$

(iii) (-7)

(iv) $(9m^2 - 6m + 7)$

(v) $(-6m^3 + 2m^2 + 4m + 3)$

24. Which of the following algebraic expressions is a quadratic polynomial?

(i) $(-8g - 3)$

(ii) $(-g^3 + 8g^2 - 6g + 2)$

(iii) $(9g^4 - 9g^3 + 6g^2 - 3g + 4)$

(iv) (-4)

(v) $(3g^2 - 9g + 2)$

25. Which of the following algebraic expressions is a cubic polynomial?

(i) $(7w^5 + 6w^4 + 9w^3 + 5w^2 - 5)$

(ii) $(-3w^3 - 3w^2 + 9w + 5)$

(iii) $(-7w^2 - 8w + 1)$

(iv) (-2)

(v) $(-8w + 9)$

26. The degree of polynomial $(-2xy + 8x + 8y + 5)$ is

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

27. The degree of polynomial $(8t^2u^2 + 9tu^2 + t - 6)$ is

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

The degree of polynomial

28. $(-q^2r^2s + 7q^2r^2 + 9q^2s^2 + 9qr^2 + 7)$ is

(i) 7 (ii) 4 (iii) 2 (iv) 6 (v) 5

29.

The degree of polynomial

$$(2a^3b^2c^2 - 8a^2b^2c^2 + 6a^2b^2 + ac^2 + 2ac + 9bc^3 - 6) \text{ is}$$

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

30. The coefficient of term q in polynomial $(-2qr - 9q + 11r + 1)$ is

- (i) -9 (ii) -11 (iii) -8 (iv) -10 (v) -7
-

31. The coefficient of term x^2y in polynomial $(-8x^2y^2 + x^2y - 6x^2 - 2x)$ is

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

The coefficient of term y^2z^2 in polynomial

32.

$$(x^2z - 9y^2z^2 - 8y^2z - 8y + 2z) \text{ is}$$

- (i) -11 (ii) -8 (iii) -7 (iv) -9 (v) -10
-

The coefficient of term qr^2s in polynomial

33.

$$(2q^3r^2s^3 - 3q^3s^3 + 6q^3s - 8q^2r^3 + 3qr^3s^2 - 4qr^2s^2 - 8qr^2s) \text{ is}$$

- (i) -7 (ii) -11 (iii) -9 (iv) -6 (v) -8
-

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

(i) $(4b^3cd + 7b^2cd^3 - 5c^3d^3)$

(ii) $(6b^2c^2 - 6bc - 6bd + 6c)$

(iii) $(-8bc^3d^2 + 2bc + 7c^3d - 8c^3)$

(iv) $9bcd$

(v) $(-3b^2cd^2 - 6b^2cd)$

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

(i) $(8s^3u - 3s^2u^3 - 3st - 6u^3)$

(ii) $(-5s - t^3u)$

(iii) $8s^2t^2u^2$

(iv) $(\quad)$

$$4s^2t^2u^2 - 2st^3u^2 + 9t^3u - 9$$

$$(v) \quad (8s^3t^3u^2 - 6s^3t^2u^3 + st)$$

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

$$(i) \quad (-4w^2x^3y^3)$$

$$(ii) \quad (5w^3y - 7wx^3y^2 - 3wx^2y^2 - w)$$

$$(iii) \quad (-5w^2xy - 5wxy^3 + 5x^3y^3 + 5x^2y^2)$$

$$(iv) \quad (-4w^2x^3y + 3y)$$

$$(v) \quad (4w^3x^3y^3 - wxy + 7wy^2)$$

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

$$(i) \quad (-3i^3j - 6j^2)$$

$$(ii) \quad (-3h^2ij^2)$$

$$(iii) \quad (-2)$$

$$(iv) \quad (-6h^3i^3j^2 + 7h^3i^2j^3 + 7hj^2)$$

$$(v) \quad (8h^2ij^2 + 2h^2j^2 - 8hi^3 + 9)$$

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

$$(i) \quad (2r^2s^2t^3 - 2rt^3 - 9rt + r)$$

$$(ii) \quad (-6r^3s^3t^2)$$

$$(iii) \quad (-5r^2st^2 - 7rs^2t + 9s^3t^2)$$

$$(iv) \quad (-8r^3s^3t^3 - r^2s^2t^3)$$

$$(v) \quad 0$$

39. Which of the following are true?

a) A binomial has two and only two terms

b) πr^2 is a monomial

c) Degree of zero polynomial is zero

d) A binomial may have degree 3

e) Every polynomial is a binomial

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

Assignment Key

- 1) (iv)
- 2) (iii)
- 3) (ii)
- 4) (iv)
- 5) (iv)
- 6) (ii)
- 7) (i)
- 8) (iii)
- 9) (i)
- 10) (iv)
- 11) (iv)
- 12) (iii)
- 13) (v)
- 14) (i)
- 15) (iii)
- 16) (ii)
- 17) (v)
- 18) (ii)
- 19) (i)
- 20) (iv)
- 21) (iii)
- 22) (iv)
- 23) (i)
- 24) (v)
- 25) (ii)
- 26) (ii)
- 27) (iv)
- 28) (v)
- 29) (iv)
- 30) (i)
- 31) (iv)
- 32) (iv)
- 33) (v)
- 34) (iv)
- 35) (ii)
- 36) (v)
- 37) (iii)
- 38) (v)
- 39) (iv)