

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

1. The degree of the polynomial $(8z + 4)$ is

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

2. The degree of the polynomial $(-8m^2 - m - 4)$ is

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

3. The degree of the polynomial $(-u^2 - 5u - 6)$ is

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

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

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

5. The constant term in polynomial $(5w - 2)$ is

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

6. The coefficient of term u in polynomial $(5u^2 + 9u + 8)$ is

(i) 6 (ii) 12 (iii) 8 (iv) 9 (v) 10

7. The coefficient of term j^2 in polynomial $(-j^3 - 3j^2 - j + 5)$ is

(i) -4 (ii) -3 (iii) -6 (iv) 0 (v) -2

8. The constant term in polynomial $(-6c^4 + 3c^3 - 5c^2 + 6c - 8)$ is

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

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

(i) $(-7w^3)$

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

(iii)

$$(-7w - 7)$$

$$(iv) (-5w^4 + 3w^3 - 4w^2)$$

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

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

$$(i) (8y^3 - 4y^2)$$

$$(ii) (7y^4 + 2y^3 - 3y^2 + 4y + 6)$$

$$(iii) (8y^4 - 9y^3 - 8y^2 - 7y + 9)$$

$$(iv) (9y^4 - 5y^3 + 3y^2)$$

$$(v) (-4y^3)$$

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

$$(i) (-2c^4 + 6)$$

$$(ii) (6c^4 - 6c^3 - 9c^2 - 7c + 4)$$

$$(iii) 6c^2$$

$$(iv) (-9c^4 + 6c^3 - 3c^2 - 3c - 6)$$

$$(v) (9c^4 - c^3 - c^2)$$

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

$$(i) (-7s^3 + 4s)$$

$$(ii) (7s^3 + 2s^2 + s)$$

$$(iii) (3s^4 + 9s^3 + 4s^2 - 5s - 6)$$

$$(iv) 2s^4$$

$$(v) 9$$

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

$$(i) 0$$

$$(ii) (-4r^4 - 5r + 7)$$

(iii) $(-2r^4)$

(iv) $(-9r^4 + 8r^3 - 2r^2 + 8r + 1)$

(v) $(7r^4 + r^2)$

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

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

(ii) $(-4g^2 - 6g - 1)$

(iii) 6

(iv) $(-3g^5 - 8g^4 - 2g^3 - 5g^2 + 1)$

(v) $(-9g - 7)$

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

(i) $(-6w - 1)$

(ii) $(-2w^3 - 5w^2 + 6w - 4)$

(iii) 7

(iv) $(-w^2 + 6w - 3)$

(v) $(6w^5 + 5w^4 + 7w^2 + 7w + 9)$

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

(i) (-7)

(ii) $(7v - 2)$

(iii) $(2v^2 + 9v - 5)$

(iv) $(3v^3 - 2v^2 + 4v - 9)$

(v) $(v^5 - 9v^4 - 6v^3 - 5v^2 - 2v)$

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

(i) (-6)

(ii) $(2v - 8)$

(iii) $(-8v^2 + 9v + 9)$

(iv) $(3v^3 + v^2 + 6v - 3)$

(v) $(-7v^5 - 3v^3 + 9v^2 + v - 4)$

18. The degree of polynomial $(-3hi - 11h - 3i + 7)$ is

- (i) 1 (ii) 2 (iii) 3 (iv) 0 (v) 4

19. The degree of polynomial $(-2s^2t^2 - st + 7s + 7t^2)$ is

- (i) 5 (ii) 4 (iii) 1 (iv) 6 (v) 3

The degree of polynomial

20. $(-2f^2g - 6fg^2h^2 - 2fgh - 3fg - 7fh^2)$ is

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

The degree of polynomial

21. $(o^3p^2q^3 + 4o^3pq + 5o^2 - 7opq^3 - 5opq + oq - 8p)$ is

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

22. The coefficient of term i in polynomial $(7hi + 9h + 6i + 8)$ is

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

23. The coefficient of term s^2t^2 in polynomial $(-s^2t^2 + 8s^2t + 8st + 4s)$ is

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

The coefficient of term pqr in polynomial

24. $(-3p^2q^2 + 5p^2qr^2 - 2p^2 + 9pqr + 6pr)$ is

- (i) 8 (ii) 12 (iii) 9 (iv) 10 (v) 6

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

25. $(3w^2xy^3 + 3wx^3y^2 - 6wx^2y^2 + 9wx^2y - 5x^3y^3 + 9x^2y^2 + xy)$ is

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

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

- (i)
- $(3r_2st - st_2)$

(ii) $(r^2 s^3 - 3r^2 s t - r^2 t^2 + r s)$

(iii) $(4r^3 s^3 t^3 - 8r^3 s^2 t^3 - 3r^2 s t^3 + 6s^2 t^2)$

(iv) $(8r^3 s + 9r^3 t^3 + 4r t^3)$

(v) $8r^2 s^3 t$

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

(i) $(6e^3 f^2 g + 2efg^2 - 2eg^2 + 2e)$

(ii) $6ef^2 g$

(iii) $(9e^2 f^3 g^3 + 3eg + 7f^3 g)$

(iv) $(3e^3 g^3 - 4ef^3 g^3)$

(v) $(4e^3 + 5e^2 f^2 g^2 - 9e^2 f g^3 + 3f^2 g^3)$

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

(i) $(-2u^3 w^2 + 7uv^3 w - 8uv^2 w^3 - 9v^3 w^2)$

(ii) $(8u^2 + 5v^3 w^3 - 5v^3 - 6v w^2)$

(iii) $(-9u^3 v^3 w^3)$

(iv) $(-2u^3 v^3 w^3 + 4uv^3 w^2)$

(v) $(-uv^2 w^2 + u - 6v^2 w)$

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

(i) $2f^3 g h^2$

(ii) $(-3f^3 g^2 h + 5f^3 + 6fg^3 h^3)$

(iii) $(-2f^3 g^3 - 4f^3 g^2 h^2)$

(iv) $(-6f^3 g^3 h^2 - 5f^2 g h - 4g^2 h - 8h^2)$

(v) 7

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

(i) $(4q^2r^2s^2 + qr^2s^2 + 4qr^2s)$

(ii) $(-q^2r^3s^3)$

(iii) $(-9q^3r^2s + 3q^2r^3s + qrs^3 + 4rs^3)$

(iv) 0

(v) $(-5r^3s^2 - 3rs^3)$

31. Which of the following are true?

- a) A polynomial of degree n has atmost n zeros
 - b) Zero of a polynomial and zero polynomial are synonymous
 - c) Zero of a polynomial is the value of the variable for which the polynomial value is zero
 - d) A linear polynomial in one variable has only one root
 - e) Zero of a polynomial and root of the polynomial are synonymous
 - f) If $(x + a)$ is a factor of $f(x)$, then $f(a) = 0$
 - g) If $(x - a)$ is a factor of $f(x)$, then $f(a) = 0$
- (i) {b,e,g} (ii) {b,a} (iii) {a,c,d,e,g} (iv) {b,f,d} (v) {f,c}
-

32. 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) {e,b} (ii) {a,b,d} (iii) {c,a} (iv) {c,a,b} (v) {c,e,d}
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33. Which of the following are polynomials?

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

b) $(x + y)$

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

d) x^2

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

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

34. Which of the following are not polynomials?

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

b) $(2x^2 - 16xy - 66y^2)$

c) $16x^2$

d) $\frac{(2x + 6y)}{(x - 11y)}$

e) $(2x + 6y)$

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

35. Which of the following are not polynomials?

a) $(9x + 4y)$

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

c) $\sqrt{x}$

d) $49x^2$

e) $(7x - 4y)$

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

36. Which of the following are not polynomials?

a) $(3x - 8y)$

b) $(24x^2 - 61xy - 8y^2)$

c) $121x^2$

d) $\frac{(8x + y)}{(3x - 8y)}$

e) $\sqrt{x}$

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

Assignment Key

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