



1. Which of the following are polynomials?

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

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

c)  $(x+y)$

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

e)  $x^2$

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

2. Which of the following are not polynomials?

a)  $(7x+11y)$

b)  $\frac{(7x+11y)}{(12x-2y)}$

c)  $(84x^2+118xy-22y^2)$

d)  $100x^2$

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

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

3. Which of the following are not polynomials?

a)  $121x^2$

b)  $121x^2 + \frac{1}{121x^2}$

c)  $\sqrt{x}$

d)  $(6x+9y)$

e)  $(6x-12y)$

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

4. Which of the following are not polynomials?

a)  $x^2$

b)  $(2x^2 + 10xy - 12y^2)$

c)  $(x - y)$

d)  $\sqrt{x}$

e)  $\frac{(2x + 12y)}{(x - y)}$

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

5. The degree of the polynomial  $(6m - 6)$  is

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

6. The degree of the polynomial  $(-3e^2 + 2e + 8)$  is

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

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

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

8. The degree of the polynomial  $(3s^4 + 6s^3 + 7s^2 - 4s - 8)$  is

(i) 5 (ii) 4 (iii) 2 (iv) 3 (v) 7

9. The coefficient of term  $m$  in polynomial  $(-9m - 1)$  is

(i) -12 (ii) -9 (iii) -7 (iv) -8 (v) -10

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

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

11. The coefficient of term  $p^3$  in polynomial  $(-9p^3 + p^2 + 3p + 6)$  is

(i) -12 (ii) -7 (iii) -9 (iv) -10 (v) -8

12. The coefficient of term  $p^3$  in polynomial  $(4p^4 - 3p^3 - 6p^2 - 2p - 8)$  is

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

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

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

(v)  $(-8y^4 + 4y^3 + 6y^2 + 3y - 7)$

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

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

(v)  $(-7g^4 + 2g^3 - 4g^2 + 8g + 8)$

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

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

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

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

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

- (i) 0 (ii)  $(n^3 - 8n^2 - 6)$  (iii)  $(-n^3)$  (iv)  $(5n^4 + 5n^3 - 7n^2 - 6n + 2)$  (v)  $(-8n^4 - 9n)$

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

- (i) 2 (ii)  $(-3h^2 + 8h - 9)$  (iii)  $(-h^3 + 9h^2 - 8h + 3)$  (iv)  $(8h + 1)$  (v)  $(3h^5 - 9h^4 - 9h^3 + 2h + 6)$

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

- (i)  $(4f + 7)$  (ii)  $(f^3 - f^2 + 3f + 2)$  (iii)  $(-5)$  (iv)  $(5f^5 + 4f^4 - 6f^3 - 5f^2 - 9)$  (v)  $(-f^2 + 6f + 8)$

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

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

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

- (i)  $(4m^2 - 7m + 3)$  (ii) 4 (iii)  $(-9m^5 - 6m^4 - 5m^3 - m + 5)$  (iv)  $(m^3 - 9m^2 + 5m - 8)$  (v)  $(2m - 3)$

22. The degree of polynomial  $(-3cd + c + 6d - 4)$  is

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

23. The degree of polynomial  $(-4d^2e^2 - 8de^2 + 2de + 5d)$  is

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

24. The degree of polynomial  $(2o^2q^2 - 8op^2q + 8oq - 7pq^2 + q^2)$  is

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

25. The degree of polynomial  $(6k^2m^3 - 2kl^3m^2 + 8klm^3 + 3km^3 + 4km + 9l^3 - m^3)$  is

- (i) 7 (ii) 9 (iii) 6 (iv) 5 (v) 3

26. The coefficient of term  $v$  in polynomial  $(-3uv - 4u + 3v - 5)$  is

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

27. The coefficient of term  $o^2p$  in polynomial  $(6o^2p^2 - 4o^2p - 3o^2 + 15o)$  is

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

28. The constant term in polynomial  $(-8t^2u^2v^2 + 8t^2v^2 - tu^2 + 9uv^2 + 4)$  is

- (i) 2 (ii) 4 (iii) 6 (iv) 3 (v) 5

29. The coefficient of term  $h^2i^3$  in polynomial  $(3h^3ij^2 - 9h^3 - 5h^2i^3 - 6hij^3 - 2hij^2 - i^2j^3 - 4ij)$  is

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

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

- (i)  $(-3p^3q^3 + q^3r^2)$  (ii)  $(p^3q^2r^3 + 5p^2qr^3 + pq^3r)$  (iii)  $(p^3q^2r^3 + 3pq^3 - 7pq^2 - pr^2)$  (iv)  $7p^3qr^3$   
(v)  $(-4p^3q^3 - 3p^3r^2 - 5p^2r + 5pr)$

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

- (i)  $8i^3j^3k^2$  (ii)  $(-2i^3j^3k - 5ij^3k^2 - 4j^3k^2 + 8k)$  (iii)  $(-5i^2j^2k + 9i^2j)$  (iv)  $(-9i^2j^3k^3 - 2i^2j^3k + 9ij^3k + 3ik^2)$   
(v)  $(7i^3j^2k^2 - 2i^2jk^2 - 3i^2j)$

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

- (i)  $(-5j^2k^2l^2 + 7j^2 - 8jkl)$  (ii)  $(-4j^3k^3l^3 + 9j^3k^2 - 3jk^2l^2 - 6k^3)$  (iii)  $(j^2k^3l^3 - 8j^2)$   
(iv)  $(-j^3l^3 + 4jk^2 - 2k^3l^3 - 5)$  (v)  $2j^3kl^3$

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

- (i)  $(7d^2e^3f^3 - 4d^2 + 4e^2f^2)$  (ii)  $3d^3ef$  (iii)  $(-4d^2ef^3 - de^3f^2)$  (iv)  $(d^3ef^3 - 9e^2f^3 - 5ef^2 + 5e)$  (v)  $(-9)$

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

- (i)  $(-4f^2g^3h^2 + fg^3h)$  (ii) 0 (iii)  $(7f^2gh^2 - 6f^2g + 4h^3)$  (iv)  $(-4f^3g^3h^3)$   
(v)  $(5f^2gh^3 + 5f^2gh^2 + 2fg^3h^2 - 8g)$

## Assignment Key

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