

EduSahara™ Learning Center Assignment**Grade : Class X, CBSE****Chapter : Polynomials****Name : Polynomials Miscellaneous**

1. The degree of the polynomial $(2q + 3)$ is

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

2. The degree of the polynomial $(-3m^2 + 2m + 1)$ is

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

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

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

4. The degree of the polynomial $(-2a^4 + 8a^3 - 5a^2 + 9a - 7)$ is

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

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

(i) $(-6m^2 + m - 9)$

(ii) $(9m - 3)$

(iii) $(6m^3 - 4m^2 + 7m + 6)$

(iv) $(-9m^4 - 7m^3 + 7m^2 - 8m + 6)$

(v) (-7)

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

(i) $(2a^3 + 2a^2 + 7a + 3)$

(ii) $(-2a + 8)$

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

(iv) $(-6a^2 - 8a - 9)$

(v) 6

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

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

(ii) $(3v - 1)$

(iii) 1

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

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

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

(i) $(-3x - 5)$

(ii) $(8x^5 + 5x^3 + 7x^2 - 3x + 3)$

(iii) $(-5x^2 - x + 4)$

(iv) 3

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

9. The value of the polynomial $(9c - 9)$ at $c = (-2)$ is

(i) -28 (ii) -26 (iii) -27 (iv) -25 (v) -30

10. The value of the polynomial $(4u^2 + 3u - 9)$ at $u = 2$ is

(i) 14 (ii) 12 (iii) 11 (iv) 13 (v) 16

11. The value of the polynomial $(9n^3 - 2n^2 - 1)$ at $n = 1$ is

(i) 6 (ii) 5 (iii) 7 (iv) 4 (v) 9

12. The value of the polynomial $(2u^4 - 3u^3 + 5u^2 - 3u - 3)$ at $u = 1$ is

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

13. Which of the following are true?

a) If $(x + a)$ is a factor of $f(x)$, then $f(a) = 0$

b) If $(x - a)$ is a factor of $f(x)$, then $f(a) = 0$

c) A polynomial of degree n has at most n zeros

d) Zero of a polynomial and zero polynomial are synonymous

e) Zero of a polynomial and root of the polynomial are synonymous

f) A linear polynomial in one variable has only one root

g) Zero of a polynomial is the value of the variable for which the polynomial value is zero

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

14. Which of the following are true?

- a) Degree of zero polynomial is zero
 b) A binomial has two and only two terms
 c) A binomial may have degree 3
 d) Every polynomial is a binomial
 e) πr^2 is a monomial

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

15. Which of the following are polynomials?

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

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

c) x^2

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

e) $(x+y)$

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

16. Which of the following are not polynomials?

a) $(10x^2 + 13xy - 30y^2)$

b) $(2x + 5y)$

c) x^2

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

e) $\frac{(2x + 5y)}{(5x - 6y)}$

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

17. Which of the following are not polynomials?

a) $81x^2 + \frac{1}{81x^2}$

b) $(12x - 8y)$

c) $81x^2$

d) $\sqrt{x}$

e) $(7x + y)$

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

18. Which of the following are not polynomials?

a) $36x^2$

b) $(5x - 3y)$

c) $\frac{(5x + 5y)}{(5x - 3y)}$

d) $(25x^2 + 10xy - 15y^2)$

e) $\sqrt{x}$

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

19. Given $f(r) = (-6r - 5)$, find $f((-5))$

(i) 26 (ii) 23 (iii) 27 (iv) 24 (v) 25

20. Given $f(x) = (2x^2 - 5x - 8)$, find $f(1)$

(i) -10 (ii) -9 (iii) -14 (iv) -11 (v) -12

21. Given $f(y) = (-5y^3 + 4y^2 - 7)$, find $f((-1))$

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

22. Given $f(y) = (4y^4 + 8y^3 - 9y^2 - y + 9)$, find $f((-5))$

(i) 1290 (ii) 1291 (iii) 1286 (iv) 1289 (v) 1288

Assignment Key

- 1) (ii)
- 2) (iv)
- 3) (iv)
- 4) (v)
- 5) (v)
- 6) (ii)
- 7) (v)
- 8) (v)
- 9) (iii)
- 10) (iv)
- 11) (i)
- 12) (iii)
- 13) (i)
- 14) (i)
- 15) (iv)
- 16) (iii)
- 17) (iii)
- 18) (iii)
- 19) (v)
- 20) (iv)
- 21) (iv)
- 22) (iv)