

Concept CW_Grade-7_Algebra

Monomials, Binomials, Trinomials and Polynomials

1. State whether the following statements are true or false:

- (i) Expression $5a^2 + a$ is a trinomial
- (ii) Expression $ax^2 + bx + c$ is a trinomial
- (iii) $5 \times mn$ is a binomial
- (iv) $11 + xy$ is a binomial
- (v) $a^3 - 3ab + 7a + 9$ is a polynomial
- (vi) $2x^3 + 7xy + 3x + 2$ is a multinomial
- (vii) $1 + 2x + 3x^2 + x^4 + x^5$ is a binomial
- (viii) $p^2 + q^2 + r^2$ is a trinomial

2. Which of the following expressions are polynomials?

- (i) $10 - 13x$
- (ii) $z + z^2 + z^5 - 7$
- (iii) $1 + \frac{1}{a} + \frac{1}{a^2} + \frac{1}{a^3} + \frac{1}{a^4}$
- (iv) $\frac{(m^2 + m - 2)}{(m - 3)}$
- (v) $\frac{1}{2} - \frac{5}{(4 + u)}$

(vi) $1 + 5m$

(vii) $1 + 5u + 4u^2$

(viii) $1/\sqrt{x} + 5$

3. For each expression, given below, state whether it is a monomial, binomial or trinomial:

(i) mn

(ii) $mn + m$

(iii) $2a \div b$

(iv) $7abc$

(v) $7 + u + v$

(vi) $2p^2 - p$

(vii) $-k$

(viii) $ax^2 + bx - 7$

(ix) $-3mn + t$

(x) $1 + a + z$

(xi) $1 + a \div z$

(xii) $a + ab - b^2$

4. Identify the following expressions are monomials, binomials, trinomials, polynomials:

(i) $11pqr$

(ii) $m + 2n$

(iii) $a + b + c$

(iv) $1 - m + m^2 + m^5 - m^7 + m^9$

(v) $2ab + c$

(vi) $1 + 3a + 4a^3$