

1:(i) Choose the algebraic expressions from following.

$78 + y = 98$, y^2 , $y + y + y$, $9y^0$, $y < 6$, $\frac{xy}{6}$

(ii) Match each of the following Algebraic Expressions to their number of terms.

Algebraic Expression	Number of terms
(i) $y+5-4z$	(a) 1
(ii) $y \times y \div z$	(b) 2
(iii) $xyz+x^2$	(c) 4
	(d) 3

2. Drag the words from word bank to fill in the blanks.

(i) The parts of algebraic expression separated by addition and subtraction sign are known as _____.

(ii) _____ is the changeable quantity.

(iii) In $3y + 9$, 3 is _____ of 'y'.

(iv) In $y^2 - 5$, 2 is the _____ of variable 'y'.

3. Tick whether each of the following pairs of terms

are like or unlike

(i) -3 , $-3z$ like terms , unlike terms

(ii) $5y^2$, $\frac{-4}{7}y^2$ like terms , unlike terms

(iii) $3y$, $3z$ like terms , unlike terms

(iv) $+8$, $+7$ like terms , unlike terms

4. Choose , Which of the following is /are not an algebraic expression(s).

$78 + y = 98$, $y + z$, $y + y + y$, $9y^0$, $y < 6$, $\frac{xy}{6}$

5. Choose the correct option of solution for each of following.

(i) Sum of $x^2 + 5x + 3$ & $-2x^2 - 5x - 5$

$$\begin{aligned} (x^2 + 5x + 3) + (-2x^2 - 5x - 5) \\ = x^2 + 5x + 3 - 2x^2 - 5x - 5 \\ = x^2 - 2x^2 + 5x - 5x + 3 - 5 \\ = -x^2 - 2 \end{aligned}$$

Option 1

$$\begin{aligned} (x^2 + 5x + 3) - (-2x^2 - 5x - 5) \\ = x^2 + 5x + 3 - 2x^2 + 5x + 5 \\ = x^2 - 2x^2 + 5x + 5x + 3 + 5 \\ = -x^2 + 10x + 8 \end{aligned}$$

Option 2

(ii) subtract $x^2 + 5x + 3$ from $-2x^2 - 5x - 5$

$$\begin{aligned} (x^2 + 5x + 3) - (-2x^2 - 5x - 5) \\ = x^2 + 5x + 3 + 2x^2 + 5x + 5 \\ = x^2 + 2x^2 + 5x + 5x + 3 + 5 \\ = 3x^2 + 10x + 8 \end{aligned}$$

Option 1

$$\begin{aligned} (-2x^2 - 5x - 5) - (x^2 + 5x + 3) \\ = -2x^2 - 5x - 5 - x^2 - 5x - 3 \\ = -x^2 - 2x^2 - 5x - 5x - 5 - 3 \\ = -3x^2 - 10x - 8 \end{aligned}$$

Option 2

(iii) If $A = 2a - 3b$, $B = b - a$ & $C = 2b$ then evaluate $A + B - C$.

$$\begin{aligned} A + B - C &= (2a - 3b) + (b - a) - (2b) \\ &= 2a - 3b + b - a - 2b \\ &= 2a - a - 3b + b - 2b \\ &= a - 2b - 2b = a - 4b \end{aligned}$$

Option 1

$$\begin{aligned} A + B - C &= (2a - 3b) + (b - a) + (2b) \\ &= 2a - 3b + b - a + 2b \\ &= 2a - a - 3b + b + 2b \\ &= a - 2b + 2b = a \end{aligned}$$

Option 2