NAME :_____ ROLL#:_____ TOPIC: ALGEBRA

1. By looking at given Algebraic expression, Encircle 'yes' or 'No'.

$3y^2 - 9z + 11$

(i) 9 is the coefficient of y^2. Yes / No

ii) '-' & '+' are algebraic operators. Yes / No

iii) 'y' is the base having exponent as 3. Yes / No

iv) 11 is the constant . Yes / No

2. Sara's teacher asked her to separate the true & false statements about the algebraic expression given below .Drag the statements in their correct box.

$-9y^2 + 3x - 5$

(i) $-9y^2$, $+3x$ & -5 are terms of given expression.

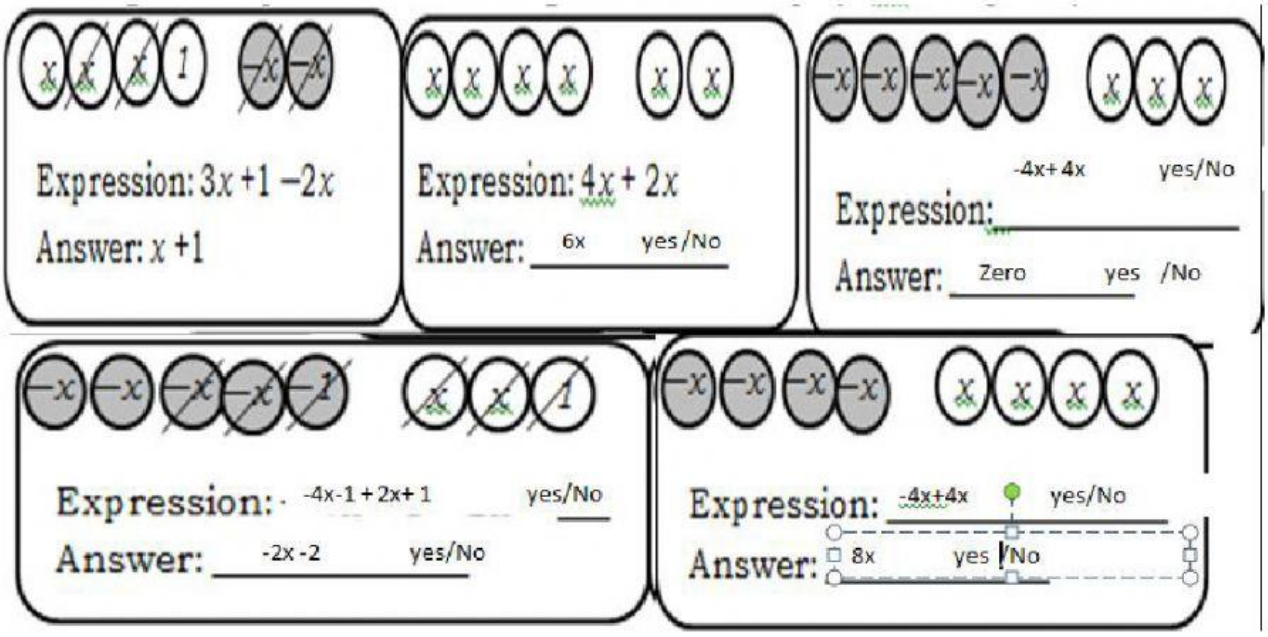
(ii) Exponent of x is 3.

(iii) Base having 2 as exponent is y.

(iv) Coefficient of y^2 is – 5.

True statement (s)	False statement (s)

3. Algebra discs can be used to simplify the algebraic expressions .In number discs +1 & -1 form zero pair (whose sum is zero).In Algebra 'x'& '-x' form a zero pair. Tick yes or no , for the algebraic expression & its simplification.



4. **Match the expression with its correct number of terms.**

Algebraic expression	Number of terms
(i) $xyz+3y+4$	2
(ii) $y \times c \div z^2$	3
(iii) $p+q \div r - x + y \times z$	1
(iv) $-9x+3yz$	4

5 Choose the algebraic expressions from following.

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

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'.

Word Bank
• Coefficient
Constant
Terms
Variable
Exponent

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 , 3 z like terms , unlike terms

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

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

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

$(x^2 + 5x + 3) + (- 2x^2 - 5x - 5)$

$= x^2 + 5x + 3 - 2x^2 - 5x - 5$

$= x^2 - 2x^2 + 5x - 5x + 3 - 5$

$= -x^2 - 2$

Option 1

$(x^2 + 5x + 3) - (- 2x^2 - 5x - 5)$

$= x^2 + 5x + 3 - 2x^2 + 5x + 5$

$= x^2 - 2x^2 + 5x + 5x + 5 + 3$

$= -x^2 + 10x - 8$

Option 2

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

$(x^2 + 5x + 3) - (- 2x^2 - 5x - 5)$

$= x^2 + 5x + 3 + 2x^2 + 5x + 5$

$= x^2 + 2x^2 + 5x + 5x + 5 + 3$

$= 3x^2 + 10x \_ 8$

Option 1

$(-2x^2 - 5x - 5) - (x^2 + 5x + 3)$

$= -2x^2 - 5x - 5 - x^2 - 5x - 3$

$= -x^2 - 2x^2 - 5x - 5x - 5 - 3$

$= -3x^2 - 10x - 8$

Option 2

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

$A+B- C = (2a- 3b) + (b-a) - (2b)$

$= 2a- 3b + b - a - 2b$

$= 2a - a - 3b + b - 2b = a - 2b - 2b = a - 4b$

Option 1

$A+B- C = (2a- 3b) + (b-a) + (2b)$

$= 2a- 3b + b - a + 2b$

$= 2a - a - 3b + b + 2b = a - 2b + 2b = a$

Option 2