

## Algebraic Expressions

1. Given  $x = 0, y = -1, z = 3$ . Find

a.  $3xyz - 2y$

b.  $yz^2 - 3x$

c.  $3xyz^2 - 3y^2$

d.  $\frac{5xz - 2y^2}{2yz}$

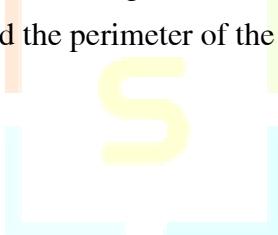
e.  $\frac{7x + 8y + 2z}{3z - 2y - 4x}$

f.  $(xy + x)(z - x) - (2z - 3)$

2. Given  $x = 4, y = -2, z = 3$ , find value of  $L = 2z + 15(x + y) + \frac{(x-y)^2}{4z}$ .

3. The equation in finding perimeter of a rectangle is  $P = 2(a + b)$ . A and B represent height and width of the rectangle. Find the perimeter of the rectangle if given

a.  $a = 3\text{cm}, b = 4\text{cm}$



b.  $a = 1.2\text{cm}, b = 0.9\text{cm}$

c.  $a = 4\frac{1}{2}\text{cm}, b = 3\frac{1}{4}\text{cm}$

4. Calculate

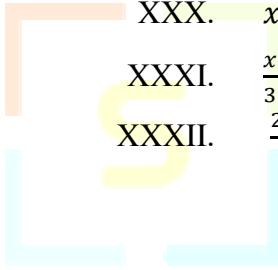
- I.  $(10m - 9n) + (-8m - n)$
- II.  $(7a - 2b) - (-3a - 7b)$
- III.  $(9y - 2z) - (3y - 4z)$
- IV.  $5x + 4(5x + 3)$
- V.  $4u - 3(2u - 5v)$
- VI.  $3a - 2(5a - 3b) - 2a$
- VII.  $4(x - 1) + 5(2x + 3)$
- VIII.  $-3(2h - k) + 4(k - 3h)$

- IX.  $-4(a - 3b) - 5(a - 3b)$
- X.  $3(p - 2q) - 4(2p - 3q - 5)$
- XI.  $2(4b - 3) + 3(b - 1)$
- XII.  $3(2b - 4a) - 2(3b - 7a)$
- XIII.  $\frac{t-1}{3} + \frac{t+1}{2}$
- XIV.  $\frac{p-2}{3} - \frac{p+1}{4}$
- XV.  $1 - \frac{a-b}{a}$

## Algebraic Expression

### 5. Solve the equations

- |        |                                  |         |   |
|--------|----------------------------------|---------|---|
| I.     | $t - 8 = 3$                      | XIX.    | $\frac{1}{2}x - \frac{1}{4}x = x - 9$   |
| II.    | $m - 31 = 31 - 3m - 2$           | XX.     | $-\frac{3}{4}x - 6 = \frac{x}{4} + 2$   |
| III.   | $x + 17 = 9$                     | XXI.    | $\frac{m}{2} - \frac{m}{3} - \frac{m}{4} = 1$   |
| IV.    | $5x - 7 = 4x$                    | XXII.   | $\frac{2m-3}{4} = \frac{3m-2}{5}$   |
| V.     | $7x - 16 = 6x + 2$               | XXIII.  | $\frac{3x+1}{5} = \frac{2(x+1)}{3}$   |
| VI.    | $10x + 18 = 9x + 9$              | XXIV.   | $6 - \frac{3(n-1)}{4} = \frac{n}{2}$  |
| VII.   | $2x + 1 = 3x - 5$                | XXV.    | $\frac{1}{5}(2x - 1) + \frac{1}{4}(3x - 1) = 3$                                       |
| VIII.  | $2x = 10 -$                      | XXVI.   | $\frac{x+1}{3} + \frac{x+3}{4} - \frac{x+4}{5} = 16$                                  |
| IX.    | $6x = 54$                        | XXVII.  | $6x = 2x - (x - 4)$   |
| X.     | $8t = -56$                       | XXVIII. | $2(3x - 4) + 7(4 - x) = 4x$   |
| XI.    | $-x = 8$                         | XXIX.   | $\frac{x}{6} - \frac{x}{9} = 1$   |
| XII.   | $-9a = -45$                      | XXX.    | $x - \frac{14-x}{3} = 8$  |
| XIII.  | $-4x = \frac{8}{5}$              | XXXI.   | $\frac{x}{3} - 2\left(\frac{1}{5} + \frac{1}{3}x\right) = \frac{3}{5}x - \frac{2}{3}$ |
| XIV.   | $-\frac{w}{6} = 6$               | XXXII.  | $\frac{2x+3}{2} - \frac{x-2}{3} = \frac{x+1}{6}$                                      |
| XV.    | $\frac{x}{3} = -7$               |         |   |
| XVI.   | $\frac{m}{4} + 6 = m$            |         |   |
| XVII.  | $1 + \frac{7z}{2} = z + 6$       |         |   |
| XVIII. | $\frac{x}{3} - \frac{2x}{7} = 4$ |         |   |



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