



BASIC ALGEBRA - ALGEBRAIC EXPRESSIONS

Class 6 to 8

WORKSHEET-1

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Worksheet – 1

Basic Algebra – Algebraic Expressions

Grade VI, VII and VIII

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- 1) Convert the following verbal statements in to algebraic expressions:
 - i. Three more than a number
 - ii. Five subtracted from a number
 - iii. Ten less than thrice a number
 - iv. Two times a number plus fifteen
 - v. One third of a number is subtracted from eight and the result is added to five

- 2) Convert the following algebraic expressions into verbal statements:
 - i. $\frac{1}{5}x + 2$
 - ii. $12x - 5$
 - iii. $10 - 3x$
 - iv. $4 \times (2x + 5)$

- 3) Identify the variables from the following algebraic expressions:
 - i. $4x - 1$
 - ii. $5x - 6xy$
 - iii. $-2x - 3y$

- 4) Identify the constants from the following algebraic expressions:
 - i. $33x - 8$
 - ii. $5x - 3xy + 1$
 - iii. $-2x + 4y$

- 5) Identify the coefficients of x from the following algebraic expressions:
- $24x - 2$
 - $45x - 3xy$
 - $-27x - 4y$
- 6) Identify the coefficients of y from the following algebraic expressions:
- $52x - 2y$
 - $45 - 8xy$
 - $-27xz - 17xyz$
- 7) Classify the following polynomials as monomial or binomial or trinomial
- $14x - 3$
 - $7xy + 2x + 10$
 - $6xy$
 - 32
- 8) Find out the like terms from the following expressions:
- $7xy + 2x + 10 - 3xy$
 - $6xy + 3x + 12 - 6x + 14y$
 - $2yz - x + 11 - 6x + 14y - 6zy + 2y$
 - $xy - x + 35 - 8y + 8zy$
- 9) Find out the expressions that have only unlike terms:
- $-6xy + 2xy$
 - $2x + 2$
 - $3y - 4y$
 - $14y - 12y$
 - $2yz - x + 11 - 6x$
 - $xy - 8zy$

10) Classify the following expressions as linear or quadratic or cubic:

i. $2x^2 + 3x + 1$

ii. x

iii. $2x^3 + 2$

iv. $-18x + 2$

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Answer key

- 1) i. $x + 3$
 ii. $x - 5$
 iii. $3x - 10$
 iv. $2x + 15$
 v. $\left(8 - \frac{3}{1}x\right) + 5$
- 2) i. One fifth of a number added to two
 ii. Five subtracted from twelve times a number
 iii. Three times a number subtracted from ten
 iv. Four times the result of two times a number added to five
- 3) i. x
 ii. x and y
 iii. x and y
- 4) i. -8
 ii. 1
 iii. 0
- 5) i. 24
 ii. 45 and $-3y$
 iii. -27
- 6) i. -2
 ii. $-8x$
 iii. $-17xz$
- 7) i. Binomial
 ii. Trinomial
 iii. Monomial
 iv. Monomial
- 8) i. $7xy$ and $-3xy$
 ii. $3x$ and $-6x$
 iii. $(2yz$ and $-6zy)$, $(-x$ and $-6x)$, $(14y$ and $2y)$
 iv. No like terms found
- 9) (b), (f)
- 10) i. Quadratic
 ii. Linear
 iii. Cubic
 iv. Linear