
ASSIGNMENT - 2

ALGEBRAIC EXPRESSION

NO. OF QUESTION - 10

1. $(5jk^2 + 5j^2 - 2j^2k) - (jk^2 + 2j^2k + 5j^2)$
- Which of the following is equivalent to the expression above?
- (A) $4jk^2$
- (B) $4jk^2 - 4j^2k$
- (C) $5j^2k^4 - 10j^4k$
- (D) $8j^2k^3 + 7j^2k - 5j^2$
2. Which of the following represents the statement “the sum of the squares of x and y is equal to the square root of the difference of x and y ” ?
- (A) $x^2 + y^2 = x - y$
- (B) $x^2 - y^2 = x + y$
- (C) $(x + y)^2 = x - y$
- (D) $x + y = (x^2 - y^2)$
3. If $2x = -1$, then $(2x - 3)^2 = ?$
- (A) 16
- (B) -16
- (C) 4
- (D) -4
4. Which of the following is equivalent to the expression $\frac{7x-4}{x+9}$
- (A) $7 - \frac{4}{x+9}$
- (B) $7 - \frac{67}{x+9}$
- (C) $7 - \frac{4}{9}$
- (D) $\frac{7-4}{9}$

5. The product of x and y is 36. If both x and y are integers, then what is the least possible value of $x - y$?
- (A) -37
(B) -36
(C) -35
(D) -9
6. Which of the following is equivalent to $5x(2x \times 3) - 5x^2$ for all real values of x ?
- (A) $5x^2 + 15x$
(B) $25x^2$
(C) $5x^2 - 15x$
(D) $10x^2 \times 15x - 5x^2$
7. If $\frac{x^2 - 2x + 1}{2 - 2x} = -3$, what is the value of $x - 1$?
8. If $x^2 + 4x + 5 = y$ and $z = x + 2$, which of the following expresses y in terms of z ?
- (A) $y = z^2 + 1$
(B) $y = z(z + 3)$
(C) $y = z^2 + 5$
(D) $y = (z + 2)^2 + 1$
9. Which of the following expressions represents the product of $3k$ and the sum of m and one third of n ?
- (A) $3mk + \frac{1}{3}n$
(B) $3k \cdot \frac{1}{3}(m + n)$
(C) $3k \cdot (m + \frac{1}{3}n)$
(D) None

10. Which of the following expressions is equivalent to

$$\frac{2}{3}(a^2 - a - 3) + \frac{1}{3}(a^2 + 2a + 6)$$

- (A) a^2
- (B) $a^2 + a$
- (C) $a^2 - a$
- (D) None

