

Algebraic Expression Worksheet – 4

- Using proper identities find the product of $(5x + 12y)(5x - 12y)$.
- Using the proper identities, evaluate 596×604 .
- Find the value of $(\sqrt{4}a + \sqrt{9}b)^2$ by using Identities property.
- Using identity property $p^2 - q^2 = (p + q)(p - q)$, find the value of $(3.05)^2 - (1.95)^2$.
- Simplify $(m^2 - n^2p)^2 + 2m^2n^2p^2$.
- Using the identity property, $(x + p)(x - q) = x^2 + (p+q)x + pq$. Evaluate the given number below.
 - (109×91)
 - $(4x + 5)(4x - 6)$
- If $m - \frac{1}{m} = 9$, evaluate $m^4 - \frac{1}{m^4}$.
- If $p^2 + q^2 = 75$ and $pq = 3$, then find the value of $(p + q)$.
- If $m^2 + \frac{1}{m^2} = 27$, evaluate $m - \frac{1}{m}$.
- If $m + n = 8$ and $mn = 9$, find the value of $m^2 + n^2$.
- Which of the following algebraic expression is not a polynomial?
 - $2m^2 - 2m + 9$
 - $\frac{3p^3}{2p} + 5p^2 + 6$
 - $5x + \frac{6}{x} + 3$
 - $\sqrt{5}y^2 + \sqrt{7}y + \sqrt{3}$
- Degree of the polynomial $9p^2qr^2 + 5p^3q^2r^2 - 3p + 5q$ is _____.
 - 5
 - 4
 - 6
 - 7
- $(5x^2yz^3) \times (-2x^3yz^2) \times 9xyz^3$ is equal to _____.
 - $-90x^5y^3z^8$
 - $90x^5y^3z^8$
 - $-90x^4y^8z^2$
 - $90xyz^2$
- $\frac{5}{3}mn - \frac{1}{2}mn + \frac{4}{9}mn$ is equal to _____.
 - $21mn$
 - $\frac{29}{18}mn$
 - $-\frac{29}{28}mn$
 - $-\frac{19}{28}mn$
- $(105)^2 - (95)^2$ is equal to _____.
 - 2000
 - 2025

b) 2095

c) 1095

16. $7p \times (2p^2 - 3pq + 4p^2)$ is equal to _____?

17. If the area of a rectangular room is $48(p^2qr + pq^2r + pqr^2)$ and its breadth is $12pqr$, then its length is _____?

18. $m(n - p) + n(p - m) + p(m - n)$ is equal to _____?

19. 80×120 is equal to _____?

20. Simplify the below equations and evaluate them by putting the value of $p = 1$ and $q = -1$

$(4pq - 3p^2 + 6q^2) \times (3q^2 - 5pq + 7q^2) + 9p^3q - 2q^4$.