

Algebraic Expression Worksheet – 2

1. Add $5pq$, $-12pq$, $\frac{2}{3}pq$, $6pq$.
2. Add $5x + 7y - 9z$, $5x - 7y + 2z$, $x - 3y - 2z$, $3z - 6x + 4y$ by column method.
3. Subtract $1 - x + 4x^2 - x^3$ from $5x^3 - 2x^2 + 2x + 3$ by column method.
4. Add $(x^3 - 1)$, $(2y^3 - 3y)$, $(4z^3 - 5z^2)$.
5. Subtract $9x^3 - 5x^2y + 7xy^2 - 2y^3$ from $4x^2y - 3x^3 + 6y^3 - 2xy^2$
6. Subtract $\frac{-5}{9}a^2b$ from $\frac{2}{3}a^2b$
7. Multiply $(-\frac{6}{5}ab^2)$ by $(\frac{65}{36}a^2b)$
8. Find the value of $(-63pqr^3) \div (-7p^3q^2r)$.
9. Arrange the multiplicand in right order of power of given expressions below and multiply.
 $(3x^4 - 5x^2 + 2x - 3x^3 + 4)$ by $(x^2 - 3x + 5)$
10. There are $6x + 8y$ shelves in a book shop and each shelf there are $8x + 6y$ books. How many books are there in the book shop?
11. Subtract the sum of $11x^2 + 5xy + 2y^2 + 6$ and $3x^2 - 9xy - 4y^2 + 5$ from $8x^2 - 13xy + 14y^2$.
12. What must be added to $p^2 - 8p + 11$ to get $3p^2 - 2p + 6$?
13. What must be subtracted from $-p^2 + 2q^2 + 4r^2 - 4pqr$ to get $2p^2 - q^2 - 3r^2 + pqr$?
14. Find the multiplication of $(4m^3 + 36m^2n) \times (-\frac{1}{3}mn^2)$ by using distributive law.
15. Divide $(p^4 - 256)$ by $(p + 4)$.
16. Find the quotient and remainder when $(4r^5 + 5r^4 - 13r^3 + 6r^2 - 34r + 7)$ is divided by $(3 + 2r + r^2)$.
17. If a sum of rupees $(32a^3 - 76a^2 + 72a - 18)$ is divided equally among $(8a - 3)$ persons. Find the amount received by each person.
18. If $(3p + 5q)$ units, $(9p + q)$ units, $(p + 14q)$, and $(5p - 6q)$ units are the length of the sides of a quadrilateral field, then find the perimeter of the quadrilateral field.
19. The product of two numbers is $(m^6 - n^6)$. If one of the numbers is $(m - n)$, then find the other.
20. The length and breadth of a rectangular box are $(x + 3y)$ units and $(5x - y)$ units respectively. The perimeter of this rectangular box is equal to the perimeter of square box. Find how much is the area of the rectangular box is less than that of the square?