## Subject-Mathematics

Topic - Multiplication of Algebraic expressions
(Worksheet)

1. $(2 x+3)(x-4)$
2. $(a+2)(a-5)$
3. $(3 y-1)(2 y+7)$
4. $(x-3)(x+4)$
5. $(2 a+5)(3 a-2)$
6. $(4 x-1)(x+2)$
7. $(y+3)(y-6)$
8. $(2 a-1)(a+4)$
9. $(x+2)(x-5)$
10. $(3 y-2)(4 y+1)$
11. $(a-3)(a+6)$
12. $(2 x+1)(x-3)$
13. $(4 a-2)(2 a+5)$
14. $(y-1)(y+4)$
15. $(2 a+3 b)(4 a-3 b)$
16. $(3 y+2)(2 y-3)$
17. $(a+5)(a-2)$
18. $(2 x-4)(x+3)$
19. $(y-3)(y+6)$
20. $(3 a+2)(4 a-1)$
21. $(x-2)(x+5)$
22. $(4 y-1)(2 y+3)$
23. $(a+4)(a-3)$
24. $(2 x-1)(x+3)$
25. $(5 y-2)(3 y+1)$
26. $(a-2)(a+5)$
27. $(3 x+1)(2 x-4)$
28. $(y+2)(y-7)$
29. $(2 a-3)(a+6)$
30. $(4 y+1)(2 y-3)$
31. $(a+3)(a-4)$
32. $(2 x+4)(x-1)$
33. $(y-2)(y+5)$
34. $(3 a-2)(4 a+1)$
35. $(x-1)(x+2)$
36. $(4 y-3)(2 y+1)$
37. $(a+2)(a-3)$
38. $(2 x-5)(x+3)$
39. $(y+1)(y-6)$
40. $(3 a+1)(2 a-4)$
41. $(x-4)(x+1)$
42. $(5 y-2)(3 y+4)$
43. $(a-1)(a+3)$
44. $(2 x+2)(x-5)$
45. $(4 y+1)(2 y-2)$
46. $(a+3)(a-2)$
47. $(3 x-2)(2 x+5)$
48. $(y-4)(y+2)$
49. $(2 a+1)(a-3)$
50. $(a+b)\left(x^{2}+2 x+1\right)$
51. $(2 x-3)\left(y^{2}+4 y-1\right)$
52. $(p-2 q)\left(3 p^{2}+p q+1\right)$
53. $(m+3)\left(2 m^{2}-5 m+2\right)$
54. $(2 a+b)\left(4 a^{2}-3 a b+b^{2}\right)$
55. $(x-1)\left(y^{2}+3 y+2\right)$
56. $(3 p+q)\left(2 p^{2}-4 p q+q^{2}\right)$
57. $(m-2)\left(5 m^{2}+2 m-1\right)$
58. $(a+2 b)\left(3 a^{2}+2 a b-b^{2}\right)$
59. $(2 x+1)\left(y^{2}-y+4\right)$
60. $(a-b)\left(2 x^{2}+3 x-1\right)$
61. $(3 x+4)\left(y^{2}-2 y+5\right)$
62. $(2 p-5 q)\left(4 p^{2}+p q+2 q^{2}\right)$
63. $(m+1)\left(m^{2}-3 m+2\right)$
64. $(3 a-b)\left(5 a^{2}+2 a b-3 b^{2}\right)$
65. $(x+2)\left(y^{2}+y+1\right)$
66. $(4 p-q)\left(2 p^{2}+5 p q+q^{2}\right)$
67. $(m-4)\left(3 m^{2}+2 m+1\right)$
68. $(a+b)\left(2 a^{2}+a b+b^{2}\right)$
69. $(2 x-y)\left(3 y^{2}+4 y-2\right)$
70. $(a+3 b)\left(x^{2}-2 x+1\right)$
71. $(2 x+1)\left(2 y^{2}-3 y+2\right)$
72. $(p-q)\left(2 p^{2}+3 p q+q^{2}\right)$
73. $(m+2)\left(m^{2}-5 m+4\right)$
74. $(3 a-2 b)\left(5 a^{2}+a b-3 b^{2}\right)$
75. $(x+3)\left(y^{2}+y+2\right)$
76. $(4 p-q)\left(3 p^{2}+2 p q+q^{2}\right)$
77. $(m-2)\left(5 m^{2}+m-2\right)$
78. $(a+b)\left(2 a^{2}+3 a b+b^{2}\right)$
79. $(2 x+2 y)\left(3 y^{2}-4 y+1\right)$

Q21. If the length of a rectangle is $2 \mathrm{a}+5$ meters and the width is $3 \mathrm{a}-2$ meters, find the algebraic expression for the area of the rectangle.

Q22. If the side length is represented by $4 \mathrm{c}-1$, find the algebraic expression for the volume of the cube.
Q23. A farmer has a field with a length given by $6 x+2$ meters and a width given by $4 x-3$ meters. Calculate the algebraic expression for the total area of the field.

Q24. The expression $3 \mathrm{~m}-5$ represents the profit earned from selling each product, and $2 \mathrm{~m}+4$ represents the number of products sold. Find the algebraic expression for the total profit.

Q25. A rectangular prism has dimensions $1=2 p+3, b=p-1$, and $h=3 p$. Determine the algebraic expression for the volume of the prism.

Q26. The length of a rectangle is $n+4$, and the width is $2 n-1$. Calculate the algebraic expression for the area of the rectangle.

Q27. The expression $8 \mathrm{~s}+3$ represents the cost of producing each shirt, and $6 \mathrm{~s}-2$ represents the number of shirts produced. Find the algebraic expression for the total cost.

Q28. In a triangle $b$ is the base and $h$ is the height. If the base is represented by $3 a$ and the height by $2 a+1$, find the algebraic expression for the area.

Q29. The expression $7 \mathrm{n}-3$ represents the revenue from selling each book, and $4 \mathrm{n}+2$ represents the number of books sold. Find the algebraic expression for the total revenue.

Q30. The length of a rectangle is $x^{2}+3 y$ meters, and the width is $x^{2}-2 y$ meters. Calculate the algebraic expression for the total area of the rectangle

