



1.  $a + 2a$

2.  $3a - a$

3.  $2a \times 3a$

4.  $4a \div 2a$

5.  $5a + 2a$

6.  $3a - 4a$

7.  $a \times 0$

8.  $2a \div a$

9.  $3a + a$

10.  $4a \times 5a$

11.  $6a \div 2a$

12.  $2a - a$

13.  $a + a$

14.  $3a \times 2a$

15.  $4a \div 4a$

16.  $5a - 3a$

17.  $a \times 1$

18.  $2a \div 3a$

19.  $4a + 3a$

20.  $5a \times 0$

21.  $2a \div a$

22.  $3a - 2a$

23.  $a + 0$

24.  $4a \times a$

25.  $5a \div 5a$

26.  $6a - a$

27.  $2a \times 4a$

28.  $3a \div 2a$

29.  $a + a$

30.  $5a - 4a$

31.  $6a \times 1$

32.  $2a \div a$

33.  $3a + 2a$

34.  $4a - 3a$

35.  $5a \times 2a$

36.  $a \div 1$

37.  $2a + 3a$

38.  $4a \div a$

39.  $5a - 2a$

40.  $6a \times 0$

41.  $2a \div a$

42.  $3a \times 5a$
43.  $4a \div 2a$
44.  $a + a$
45.  $5a - a$
46.  $6a \times 4a$
47.  $2a \div 4a$
48.  $3a + 4a$
49.  $a - a$
50.  $5a \times 3a$

51. Tom has twice as many apples as Mary. If Mary has  $a$  apples, how many apples does Tom have?
52. The sum of two consecutive integers is 25. Find the integers.

53. The perimeter of a rectangle is 42 meters. If the length is  $a$  meters and the width is  $5a - 5$  meters, find the dimensions of the rectangle.
54. A car travels at a speed of 60 miles per hour. How far will it travel in  $t$  hours?
55. John is three times as old as his sister. If his sister is  $s$  years old, how old is John?
56. The sum of three consecutive odd integers is 57. Find the integers.
57. A rectangle has a length that is 4 meters less than twice its width. If the width is  $w$ , find the length of the rectangle.
58. A father is four times as old as his son. If the son is  $s$  years old, how old is the father?
59. The difference between a number and five is 12. Find the number.
60. The perimeter of a rectangle is 26 cm. If the width is  $w$  cm and the length is  $4w + 4$  cm, find the value of  $w$  and the dimensions of the rectangle.
61. A number is increased by 5, and the result is multiplied by 3. If the final result is 27, find the original number.
62. If a certain number is multiplied by 2 and then subtracted by 8, the result is 14. Find the original number.
63. A carpenter cuts a piece of wood into two pieces. If the length of the original piece is  $a$  inches and one piece is  $3a$  inches, find the length of the other piece.
64. The sum of a number and 7 is equal to twice the number. Find the value of the number.
65. A bag contains twice as many red marbles as blue marbles. If there are  $b$  blue marbles, find the total number of marbles in the bag in terms of  $b$ .
66. The cost of a shirt is \$20 more than twice the cost of a hat. If the cost of the hat is  $h$  dollars, find the cost of the shirt.
67. A rectangle has a length of  $2a$  units and a width of  $a$  units. If the area is 30 square units, find the value of  $a$ .
68. A cyclist travels at a speed of  $v$  km/h. If the total time of travel is 5 hours, express the total distance traveled in terms of  $v$ .
69. The sum of three consecutive even integers is 42. Find the integers.

1.  $3x + 2y + 4x - 5y$
2.  $a^2 - 2ab + b^2 + a^2 + 3ab - 4b^2$
3.  $2m^2 + 5mn + 3m^2 - 2mn$
4.  $x^3 + 2x^2 - x + 4x^3 - 3x^2 + 2x$
5.  $2p^2q - 3pq^2 + 5p^2q + 2pq^2$
6.  $a + 2b - 3c + -2a + 4b + 5c$
7.  $4x^2 - 7xy + 3y^2 + -2x^2 + 5xy - y^2$
8.  $3ab + 2bc + -ab - 4bc$
9.  $2m^3 - 5m^2n + 3mn^2 + -m^3 + 4m^2n - 2mn^2$
10.  $x^4 - 2x^3 + x^2 - x + 3x^4 + 4x^3 - 2x^2 + 5x$
11.  $a^3 + 2a^2 - a + -3a^3 + 4a^2 + 5a$
12.  $2xy^2 + 3x^2y + -xy^2 - 2x^2y$
13.  $5ab - 2ac + 3bc + -3ab + ac - 4bc$
14.  $2p^2 + 5pq - 3q^2 + -p^2 - 2pq + 4q^2$
15.  $x^3 - 2x^2 + x + -3x^3 + 4x^2 - 5x$
16.  $4a^2b - ab^2 + 2a^2c + -2a^2b + ab^2 - 3a^2c$
17.  $2m^2n - 3mn^2 + 5m^2n + 2mn^2$
18.  $x^4 - x^3 + 2x^2 + -2x^4 + 3x^3 - x^2$
19.  $3pq - 2qr + rp + -pq + 4qr - 5rp$
20.  $a^3 + 2a^2 - a + -a^3 + 4a^2 + 3a$
21.  $2xy + 3yz + -xy - 2yz$
22.  $5ab^2 - 2a^2b + -3ab^2 + 4a^2b$
23.  $3m^3n - 4m^2n^2 + -2m^3n + 5m^2n^2$
24.  $x^5 - 2x^4 + x^3 + -3x^5 + 4x^4 - 2x^3$
25.  $4a^3 - 2a^2 + a + -2a^3 + 3a^2 - 5a$
26.  $2pq^2 - 3p^2q + -5pq^2 + 4p^2q$
27.  $x^3 - 2x^2 + x + -x^3 + 3x^2 - 2x$
28.  $4ab + 2bc + -2ab - 3bc$
29.  $3m^2 + 5mn + -4m^2 + 2mn$
30.  $x^4 - 2x^3 + x^2 + 2x^4 - 3x^3 + 2x^2$
31.  $a^3 + 2a^2 - a + 3a^3 - 4a^2 - 2a$
32.  $2xy^2 + 3x^2y + -xy^2 - 2x^2y$
33.  $5ab - 2ac + 3bc + -3ab + ac - 4bc$
34.  $2p^2 + 5pq - 3q^2 + -p^2 - 2pq + 4q^2$
35.  $x^3 - 2x^2 + x + -3x^3 + 4x^2 - 5x$
36.  $4a^2b - ab^2 + 2a^2c + -2a^2b + ab^2 - 3a^2c$
37.  $2m^2n - 3mn^2 + 5m^2n + 2mn^2$
38.  $x^4 - x^3 + 2x^2 + -2x^4 + 3x^3 - x^2$
39.  $3pq - 2qr + rp + -pq + 4qr - 5rp$
40.  $a^3 + 2a^2 - a + -a^3 + 4a^2 + 3a$
41.  $2xy + 3yz + -xy - 2yz$
42.  $5ab^2 - 2a^2b + -3ab^2 + 4a^2b$
43.  $3m^3n - 4m^2n^2 + -2m^3n + 5m^2n^2$
44.  $x^5 - 2x^4 + x^3 + -3x^5 + 4x^4 - 2x^3$
45.  $4a^3 - 2a^2 + a + -2a^3 + 3a^2 - 5a$
46.  $2pq^2 - 3p^2q + -5pq^2 + 4p^2q$
47.  $x^3 - 2x^2 + x + -x^3 + 3x^2 - 2x$