



Algebra Worksheet

Simplify by gathering like terms

1. $a + a + a + a$
2. $2a + 3a + a$
3. $3a - a + 4a$
4. $b - 2b + 3b - 5b$
5. $2a + 3b + 3a + 4b$
6. $a - 3b + 5a + 6b$
7. $a - 3b + 5a + 6b$
8. $5q - 8w - 3q + 4w$
9. $-x + 3y + 5x - 2y + 3x$
10. $7a - 2b - 7a + 6b$
11. $3t - 2w + 3q - 6w + 2t$
12. $-4x - 3y + 5x + 3y - x$
13. $7 - 3b - 4a + 6b + 2a - 8$
14. $3z - 3f + 3q - 6w + 2t$
15. $7 - 8x - 3y + 5x - 3y - 7$

Simplify by gathering like terms

1. $ab + ab + ba + ab$
2. $2ef + 3fe + f$
3. $3a - 3ab + 4a + 6ba$
4. $5xy - 2x - 3y + 6b - 7yx$
5. $4 - 2wx - 2 + 2yx - 7xw$
6. $5y - 7x + xy - 5y - yx - 5$
7. $8z + 5yx - 7xz + 7z - 8y$
8. $-ef + 2x - 7fe - 2x - 5$
9. $-x + 3y + 5x - 2y + 3x$
10. $7ab - 2ba - 7ab + 6ba$

Simplify by gathering like terms

1. $8x^2y - 6x + 7yx^2 + 2x$
2. $3ab + 2a^2b - 9ba^2 - 3ba$
3. $2yx^3 - 3x^3y - 6x + 5z - 2z^2$
4. $-x^3y - y^3x + z^2 - y - z^2$
5. $ef^2 - 2a^2b + b^2 - a^2 - f^2e + a^2$
6. $9xyz + 5zyx - 7yxz + 7z^2 - 8y^2$

Simplify

1. $3 \times a \times b$ 2. $2 \times 2a \times b$ 3. $2a \times c \times 3b$ 4. $2p \times 2q \times 3$
5. $7q \times 8p \times w \times 2$ 6. $f \times f \times e$ 7. $2q \times 2q \times w$ 8. $3d \times r \times 2d \times 2$

Simplify by removing the brackets

1. $3(x + y)$ 2. $2(3x + 4y)$ 3. $2x(2 + 4y)$ 4. $3(2 - 4x)$
5. $7(x^2 - y^2)$ 6. $5(x + y + z)$ 7. $3(2x - 4y - 4)$ 8. $-2(x + y)$

Simplify by removing the brackets and gathering like terms

1. $3(x + y) + 2(x + y)$ 2. $2(2x + y) + 3(x - y)$ 3. $2(3a - 2b) + 4(a - 2b)$
4. $5(a - b) - 2(3b + 2a)$ 5. $2x(3 + y) - 3y(x - 4)$ 6. $2(3 - 2b) - 4(b - 5a)$
7. $5x(x - 3y) - 2(x^2 + 2xy)$ 8. $2 - 3(3x - y) + 3y(x - 4)$ 9. $4b(3 - 2b) - 4b^2$
8. $4d(d - 3) - 2(d^2 + 2ed)$ 9. $2qw - 3q(3q - 5) - 3w(w - 4q)$

Mixed Exercise

1. $4b - 2b + 3b - 5b$ 2. $-a - 4b + 6a + 6b$ 3. $4t - 3w - 3q + w + 2t + q$
4. $xy + yx + xy + yx$ 5. $4ef + 3fe - 7fe$ 6. $3z - 5yx + 4xy + 7z$
7. $-4ef - 2x + 7fe + 6x - 5$ 8. $-3xz + 9yx + 5x - 2xy + 3xz$
9. $6p^2q - 6q - 5qp^2 + 2q$ 10. $8ab - a^2b - 9ba^2 - 3ba$
11. $q \times 2p \times 2w \times 5$ 12. $x \times x \times y$ 13. $3w \times 2q \times w$ 14. $d \times 2r \times 6d \times 2$
15. $4(x - y)$ 16. $3(2x + y - 5z)$ 17. $-2(x - 4y - 4)$ 18. $2(x^2 - 2y^2)$
19. $5(x - 4y) - 2(x - 3y)$ 20. $7 + 2x(3y - 1) - y(x - 4)$ 21. $3c(1 - 2c) + 3c^2$

