SIMPLIFYING EXPRESSIONS

ANSWERS

Helpful Example

$5h(2e - 6h + 3) - h(4h - 15)$

$= 5h(2e - 6h + 3) - h(4h - 15)$ *Distributive Property*

DISTRIBUTE THE <u>5h</u> AND THE NEGATIVE <u>h</u>.

$= 10eh - 30h^2 + 15h - 4h^2 + 15h$

$= 10eh - 30h^2 - 4h^2 + 15h + 15h$ *Commutative Property*

MOVE TERMS SO LIKE TERMS ARE TOGETHER.

$= 10eh - 34h^2 + 30h$ or $-34h^2 + 10eh + 30h$

Simplify each expression.

THE FRACTION IS A GROUP. YOU NEED TO DISTRIBUTE THE NEGATIVE SIGN.

1. $3m(8 + 6m) - m(m - 12)$

$17m^2 + 36m$

2. $2u + (9ng - 4nu + u) - 6nu$

$9ng - 10nu + 3u$

3. $6h - 17z - \dfrac{6z - 6h}{6}$

$= 6h - 17z - \left(\dfrac{6z}{6} - \dfrac{6h}{6} \right)$

$= $ **$7h - 18z$**

4. $\dfrac{6h - 8e}{2} + 6(5h + 8e)$

$33h + 44e$

5. $-c(6c - 8k) - 6c(3k - 9)$

$-6c^2 - 10ck + 54c$

6. $(5t - 3v)3 - 2(4t + 6v)$

$7t - 21v$

7. $-(4c - 11a) - 6(7c - 3a)$

$-46c + 29a$

8. $5v(18v - 5 - 25v)$

$-35v^2 - 25v$

9. $19u - (4p - 8u - 17)$

$27u - 4p + 17$

10. $c(6t - 8s) - 7(3c - 9ct)$

$69ct - 8cs - 21c$

11. $(19w - 8b) + (4b - 8w + 17)$

$11w - 4b + 17$

12. $\dfrac{9d + 3r}{3} - 4(8r - 6)$

$3d - 31r + 24$

13. $2b(3y - 5q - 2) + 5b(y + 4)$

$11by - 10bq + 16b$

14. $\dfrac{4 + 8e}{4} + \dfrac{10 + 5e}{5}$

$3e + 3$

15. $x(7y + 3z) - 3(9x - 4yz)$

$7xy + 3xz - 27x + 12yz$

16. $7 - (3d - n) - \dfrac{6(5n + 7d)}{3}$

$-9n - 17d + 7$

17. $\dfrac{8k + 10 - 6f}{2} - \dfrac{6k + 3f - 9}{3}$

$2k - 4f + 8$

18. $-8(-2x + 7y) - \dfrac{8x + 4y}{4}$

$14x - 57y$

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