

Simplify #1 (no division)

1. $x \times x \times x$

2. $x + x + x$

3. $x \times 3x$

4. $4x \times 3$

5. $a + b + a$

6. $x + x^2 + x$

7. $9x - 2x$

8. $5y - 3y$

9. $2y^2 + 5y^2$

10. $x^2 \times 12$

11. $4y \times 4y^2$

12. $4k - 3k$

13. $5 + 2k + 2$

14. $x + 2k + 4x =$

15. $3k^3 \times 4k^3$

16. $2y^4 + 3y^4$

17. $5x^4 \times 2x^2$

18. $3k^2 - 6k^2$

19. $5k \times 3g$

20. $3x - 4x$

21. $2x^4 \times 4x$

22. $3f \times g^2$

23. $2x^3 \times x$

24. $3x - 3x$

25. $12y^2 \times 3$

26. $x + 7 + x + 5$

27. $8k^2 - 2k^2$

28. $2 \times 3g$

29. $6x - 14x$

30. $k^3 + 2k^3$

31. $2y^3 \times 8y$

32. $3y \times 3y^2$

33. $2f \times 2x$

34. $8x^2 - 2x^2$

35. $2k \times 5k^2$

36. $2x \times 3x^2$

37. $4x + 2x$

38. $3k^2 + 5k^2$

39. $3x + 3x$

40. $4k^3 \times 2k$

Simplify #1 Answers

Note that addition and multiplication can be in any order, as $2a + b = b + 2a$ and $4ab = 4ba$

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|-----|-------------------------|------------------|-----|--------------------|-----------|
| 1. | $x \times x \times x =$ | x^3 | 21. | $2x^4 \times 4x =$ | $8x^5$ |
| 2. | $x + x + x =$ | $3x$ | 22. | $3f \times g^2 =$ | $3fg^2$ |
| 3. | $x \times 3x =$ | $3x^2$ | 23. | $2x^3 \times x =$ | $2x^4$ |
| 4. | $4x \times 3 =$ | $12x$ | 24. | $3x - 3x =$ | 0 |
| 5. | $a + b + a =$ | $2a + b$ | 25. | $12y^2 \times 3 =$ | $36y^2$ |
| 6. | $x + x^2 + x =$ | $2x + x^2$ | 26. | $x + 7 + x + 5 =$ | $2x + 12$ |
| 7. | $9x - 2x =$ | $7x$ | 27. | $8k^2 - 2k^2 =$ | $6k^2$ |
| 8. | $5y - 3y =$ | $2y$ | 28. | $2 \times 3g =$ | $6g$ |
| 9. | $2y^2 + 5y^2 =$ | $7y^2$ | 29. | $6x - 14x =$ | $-8x$ |
| 10. | $x^2 \times 12 =$ | $12x^2$ | 30. | $k^3 + 2k^3 =$ | $3k^3$ |
| 11. | $4y \times 4y^2 =$ | $16y^3$ | 31. | $2y^3 \times 8y =$ | $16y^4$ |
| 12. | $4k - 3k =$ | k (or $1k$) | 32. | $3y \times 3y^2 =$ | $9y^3$ |
| 13. | $5 + 2k + 2 =$ | $7 + 2k$ | 33. | $2f \times 2x =$ | $4fx$ |
| 14. | $x + 2k + 4x =$ | $5x + 2k$ | 34. | $8x^2 - 2x^2 =$ | $6x^2$ |
| 15. | $3k^3 \times 4k^3 =$ | $12k^6$ | 35. | $2k \times 5k^2 =$ | $10k^3$ |
| 16. | $2y^4 + 3y^4 =$ | $5y^4$ | 36. | $2x \times 3x^2 =$ | $6x^3$ |
| 17. | $5x^4 \times 2x^2 =$ | $10x^6$ | 37. | $4x + 2x =$ | $6x$ |
| 18. | $3k^2 - 6k^2 =$ | $-3k^2$ | 38. | $3k^2 + 5k^2 =$ | $8k^2$ |
| 19. | $5k \times 3g =$ | $15kg$ | 39. | $3x + 3x =$ | $6x$ |
| 20. | $3x - 4x =$ | $-x$ (or $-1x$) | 40. | $4k^3 \times 2k =$ | $8k^4$ |