

Routine Simplify Practice #2

Fully simplify the following expressions:

1. $-8e \times 3g$

2. $-y \times \frac{1}{2}$

3. $12y \div 2k^2$

4. $2x^2 \times 4x \times -3x^2$

5. $(4xy^2)^2$

6. $8x^2 \div 2x^2$

7. $3gh \times -5h$

8. $2k - 4k$

9. $16 \div 8x$

10. $3k \times k^2$

11. $-2y + -5y$

12. $3x^3 \div yx^2$

13. $(4kh)^2$

14. $-4 + 12a$

15. $9k \times 0.5x^3$

16. $(x^3y^2)^2$

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

18. $9x \times \frac{1}{x^2}$

19. $2xy \div x^2$

20. $x^3 + x^3$

Answers: Routine Simplify Practice #2

Fully simplify the following expressions:

1. $-8e \times 3g = -24eg$
2. $-y \times \frac{1}{2} = \frac{-y}{2}$ or $-\frac{1}{2}y$
3. $12y \div 2k^2 = \frac{12}{2} \frac{k}{k^2} = \frac{6}{k}$ or $6k^{-1}$
4. $2x^2 \times 4x \times -3x^2 = -24x^5$
5. $(4xy^2)^2 = 4xy^2 \times 4xy^2 = 16x^2y^4$
6. $8x^2 \div 2x^2 = \frac{8x^2}{2x^2} = 4$
7. $3gh \times -5h = -15gh^2$
8. $2k - 4k = -2k$
9. $16 \div 8x = \frac{16}{8x} = \frac{2}{x}$ or $2x^{-1}$
10. $3k \times k^2 = 3k^3$
11. $-2y + -5y = -7y$
12. $3x^3 \div yx^2 = \frac{3}{1} \frac{x^3}{yx^2} = \frac{3x}{y}$ or $3xy^{-1}$
13. $(4kh)^2 = 4kh \times 4kh = 16k^2h^2$
14. $-4 + 12a$ can't be simplified, as the terms are not "like"
15. $9k \times 0.5x^3 = 4.5kx^3$
16. $(xy)^2 = xy \times xy = x^2y^2$
17. $y^2 \times 3y^2 = 3y^4$
18. $9x \times \frac{1}{x^2} = \frac{9x}{x^2} = \frac{9}{x}$ or $9x^{-1}$
19. $2xy \div x^2 = \frac{2xy}{1x^2} = \frac{2y}{x}$ or $2yx^{-1}$
20. $x^3 + x^3 = 2x^3$