

Simplifying Algebraic Expressions

Simplify.

1. $\frac{2x}{4x+4}$

2. $\frac{9x^2+9x}{2x+2}$

3. $\frac{x^2+8x-20}{x^2+11x+10}$

4. $\frac{x^2-7x+12}{x^2+3x-18}$

5. $\frac{x^2-9}{x^3+x^2-9x-9}$

6. $\frac{x^3+5x^2+6x}{x^2-4}$

7. $\frac{x^3-4x}{x^2+x-2}$

8. $\frac{12+x-x^2}{2x^2-9x+4}$

9. $\frac{-7x^2-21x+756}{x+12}$

10. $\frac{15x^2-36x+12}{15x^5-30x^4}$

11. $\frac{20x^2-100x}{16x^2-400}$

12. $\frac{-8a^2+26a-20}{-4a^6+8a^5}$

13. $\frac{11c^2+66c+33}{4c^2+24c+12}$

14. $\frac{b^2-36}{b^2-9b+18}$

Answers: 1. $\frac{x}{2(x+1)}$

2. $\frac{9x}{2}$

3. $\frac{x-2}{x+1}$

4. $\frac{x-4}{x+6}$

5. $\frac{1}{x+1}$

6. $\frac{x(x+3)}{x-2}$

7. $\frac{x(x-2)}{x-1}$

8. $\frac{-3-x}{2x-1}$

9. $-7x+63$

10. $\frac{5x-2}{5x^4}$

11. $\frac{5x}{4(x+5)}$

12. $\frac{(4a-5)}{2a^5}$

13. $\frac{11}{4}$

14. $\frac{b+6}{b-3}$