

## 13.1 Homework - Simplifying Rational Expressions

**Simplify each expression.**

1)  $\frac{n^2 + 7n + 12}{n + 3}$

2)  $\frac{n - 1}{3n - 3}$

3)  $\frac{x^2 + 11x + 18}{x^2 + 8x - 9}$

4)  $\frac{25b - 35}{25b + 25}$

5)  $\frac{3m^3 + 21m^2 - 54m}{2m^2 + 19m + 9}$

6)  $\frac{4x^3 + 12x^2 + 8x}{7x^2 + 9x + 2}$

7)  $\frac{30n^2 + 54n}{30n^3 + 30n^2 - 60n}$

8)  $\frac{3k^3 + 15k^2 - 18k}{7k^3 + 39k^2 - 18k}$

**Simplify. Your answer should contain only positive exponents.**

9)  $\frac{3a^2b^4}{2a}$

10)  $\frac{2x^3y^2}{4x^4y^4}$