

Montgomery College
Department of Mathematics
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Supplementary homework for Lesson 23
Simplifying Rational Expressions

Write in simplest form:

1. $\frac{2a^3}{7a}$

2. $\frac{5f^4}{15f^4}$

3. $\frac{8a^5}{20a^9}$

4. $\frac{2a-10}{5-a}$

5. $\frac{4x-24}{2x-12}$

6. $\frac{4v-14}{35-10v}$

7. $\frac{m^2-6m+9}{m^2-9}$

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

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

10. $\frac{x^2+8x+7}{x^2-4x-5}$

11. $\frac{y^2+3y-4}{y^2-y-20}$

12. $\frac{11x^2-22x^3}{6x-12x^2}$

Answers

1. $\frac{2a^2}{7}$

2. $\frac{1}{3}$

3. $\frac{2}{5a^4}$

4. -2

5. 2

6. $-\frac{2}{5}$

7. $\frac{m-3}{m+3}$

8. $\frac{x+2}{2}$

9. $\frac{2a-1}{a-1}$

10. $\frac{x+7}{x-5}$

11. $\frac{y-1}{y-5}$

12. $\frac{11x}{6}$