

Name _____

Score _____

Multiply or divide.

1. $\frac{30a^3b^5}{25x^3y^3} \cdot \frac{5x^2y^3}{6a^2b^3}$

1. _____

2. _____

3. $\frac{x^2+2x-15}{x^2+3x-10} \cdot \frac{x^2-x-2}{x^2-1}$

4. $\frac{x^2-x-6}{15-8x+x^2} \cdot \frac{x^2-x-20}{x^2+4x+4}$

3. _____

4. _____

5. $\frac{x^2+4x-12}{x^2-7x+6} \cdot \frac{x^2-3x+2}{x^2-4x+4}$

8. $\frac{x^3-8}{2x^2-7x+6} \cdot \frac{2x^2+x-6}{x^2+2x+4}$

5. _____

8. _____

9. $\frac{x^2-6x+5}{3x^2-5x+2} \cdot \frac{3x^2-8x+4}{x^2-25}$

10. $\frac{6x^2y^4}{15a^4b^3} \div \frac{16x^4y^3}{5a^3b^3}$

9. _____

10. _____

Write each fraction in terms of the LCM of the denominators.

Additional Objective 6.2.2 Exercises

1. $\frac{x-3}{2x(x-3)}, \frac{2}{6x^2}$

3. $\frac{3x-2}{4x^2-12x}, -4x$

1. _____

3. _____

13. $\frac{7x}{x^2-x-6}, \frac{-4x}{x^2+4x+4}$

13. _____

Simplify.

Additional Objective 6.2.3 Exercises

1. $\frac{2}{3xy} - \frac{5}{3xy} + \frac{3}{3xy}$

2. $-\frac{4}{5x^2} + \frac{9}{5x^2} - \frac{4}{5x^2}$

1. _____

2. _____

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

4. $\frac{3x}{3x^2+13x-10} - \frac{2}{3x^2+13x-10}$

3. _____

4. _____

9. $\frac{3x-2}{15x} - \frac{2x-5}{10x}$

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

9. _____

10. _____

Name _____

Score _____

Evaluate.

1. Given $f(x) = \frac{-7x}{x^2 - 3x + 6}$, find $f(2)$.

2. Given $g(x) = \frac{x+8}{9x^2 - 6x + 3}$, find $g(-2)$.

1. _____

2. _____

3. Given $f(x) = \frac{x-8}{3x^2 - 2x - 11}$, find $f(-3)$.

3. _____

Find the domain.

9. $f(x) = \frac{x-7}{2x+6}$

10. $g(x) = \frac{x+11}{x^2 - x - 12}$

9. _____

10. _____

11. $f(x) = \frac{6x+5}{x^2 + 2x + 1}$

11. _____

Simplify.

1. $\frac{3+9x}{3}$

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

3. $\frac{10x^2(x+2)}{2x(x+2)}$

1. _____

2. _____

3. _____

8. $\frac{a^2 - 8a + 15}{a^2 + 2a - 35}$

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

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

8. _____

9. _____

12. _____

Additional Objective 6.1.2 Exercises