

NAME _____

DATE _____

CLASS _____

SAMPLE TEST

1. **SECTION 6.6** Find the sum: $\frac{12x}{7} + \frac{3x}{35}$.

2. **SECTION 6.1** Reduce: $\frac{x^2 - 7x - 8}{x^2 + 4x - 96}$.

3. **SECTION 6.7** Simplify:

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

4. **SECTION 6.4** Find the difference:

$$\frac{x^2 + 9x + 5}{x + 1} - \frac{7x - 4}{x + 1}$$

5. **SECTION 6.1** Determine what $\frac{t+5}{t-8}$ was multiplied by to get a product equal to

$$\frac{t^2 + 7t + 10}{t^2 - 6t - 16}$$

6. **SECTION 6.2** Determine the product:

$$\frac{t^2 + 2t - 8}{t + 1} \cdot \frac{t^2 + 2t + 1}{t^2 - 4}$$

7. **SECTION 6.7** Simplify by rewriting the complex fraction as a division problem using \div :

$$\frac{\frac{b-3}{b+3}}{\frac{b^2-9}{b^2+6b+9}}$$

ANSWERS

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

8. **SECTION 6.4** Find the sum:

$$\frac{t^2 - t - 3}{t + 1} + \frac{3t^2 + 3t - 4}{t + 1}$$

9. _____

9. **SECTION 6.3** Divide and reduce to lowest terms:

$$\frac{p^2 - 6p - 27}{p^2 + 5p - 14} \div \frac{p^2 - 5p - 36}{p^2 + p - 6}$$

10. _____

10. **SECTION 6.9** Solve for R :

$$v = R \left(\frac{1}{2^2} - \frac{1}{n^2} \right)$$

11. _____

11. **SECTION 6.8** Solve:

$$\frac{z + 1}{z^2 - 4} + \frac{1}{z + 2} = 0$$

12. _____

12. **SECTION 6.6** Find the difference:

$$\frac{w - 1}{9} - \frac{3w - 2}{12}$$

13. _____

13. **SECTION 6.8** Solve:

$$1 + \frac{2}{m} = \frac{-5}{m} - \frac{10}{m^2}$$

14. _____

14. **SECTION 6.5** Determine the GCF and LCM of $x(x + 2)$ and $x^2 - 4$.