Name:_____ Date:_____

PC: Review of Operations on Rational Expressions Ms. Loughran

Perform the indicated operations and simplify. Do not forget to write restrictions.

1. $\frac{y-7}{y} \div \frac{y^2-49}{y}$

2. $\frac{7x^2y^3}{9ab} \div \frac{14x^2y}{3a^2b^2}$

3. $\frac{b^2-25}{(b-5)^2} \div \frac{4b+20}{2b-10}$

4. $\frac{x^2+3x-4}{x^2-5x} \cdot \frac{x^2-2x-15}{x+4}$

5. $\frac{y^2-6y-7}{y^2-7y} \cdot \frac{y^2}{y+1}$

6. $\frac{7a}{(4b)^3} \cdot \frac{64b}{21a^4}$

7. $\frac{y^2-1}{3y-9} \cdot \frac{y^2-8y+15}{4y+4} \div \frac{y^2-6y+5}{6y^2}$

8. $\frac{x^2-3x}{x^2+3x-10} \cdot \frac{2x+10}{3} \div \frac{x^2-x-6}{x^2-4}$

9. $\frac{x^2-9}{2x^2+5x-3} \div \frac{1}{2x-1}$

10. $\frac{3}{x^2-16} + \frac{2}{x^2-4x}$

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

12. $\frac{4}{x^2+4x-5} - \frac{3}{x^2-1}$

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

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

15. $\frac{x}{x-1} + \frac{x+7}{x^2-1} - \frac{x-2}{x+1}$

16. $\frac{n^3-8}{n+2} \cdot \frac{2n^2+8}{n^3-4n} \cdot \frac{n^3+2n^2}{n^3+2n^2+4n}$