

Name: _____

Unit 8: Rational Functions

Date: _____ Bell: _____

Homework 9: Solving Rational Equations

**** This is a 2-page document! ****

Directions: Solve each equation. Be sure to check all equations.

1. $\frac{5}{m} = \frac{8}{2m-6}$

2. $\frac{y}{4} = \frac{9}{y}$

3. $\frac{x+5}{5} = \frac{6}{x-2}$

4. $\frac{2}{a-2} = \frac{3a-1}{2a+11}$

5. $w + \frac{16}{w} = 10$

6. $\frac{1}{3} + \frac{2}{k} = \frac{13}{3k}$

7. $\frac{4}{3v} - \frac{1}{v} = \frac{v+2}{2v^2}$

8. $\frac{3}{n} - \frac{1}{2} = \frac{n-5}{n}$

$$9. \frac{4}{x} = \frac{1}{x^2 + 4x} + \frac{5}{x}$$

$$10. \frac{1}{p-2} - \frac{5}{p^2 + 4p - 12} = \frac{6}{p-2}$$

$$11. x + \frac{10}{x-9} = 2$$

$$12. \frac{5r}{r+1} = 4 - \frac{5}{r+1}$$

$$13. \frac{2}{c^2 - 4c} = \frac{1}{3c} + \frac{1}{3}$$

$$14. \frac{y+6}{y-1} - \frac{y-4}{y^2 - y} = \frac{1}{y-1}$$