Name: _____ Date: _____

PCH: Simplifying Rational Expressions Ms. Loughran

Do Now: Express each fraction in simplest form.

1. $\dfrac{6x^2+6x+3}{8x^2+8x+4}$

2. $\dfrac{x^3-8}{x^4-16}$

3. $\dfrac{6hg-3h^2}{3h^2-13hg+14g^2}$

4. $\dfrac{2s^2-5st+2t^2}{s^2+st-6t^2}$

Classwork:

Express each fraction in simplest form.

1. $\dfrac{u^4-v^4}{u^4+2u^2v^2+v^4}$

2. $\dfrac{x^2-y^2-4x+4y}{x^2-y^2+4x-4y}$

3. $\dfrac{x^4+x^2y^2+y^4}{x^3+y^3}$

4. $\dfrac{x^4+6x^2+9}{x^4+2x^2+9}$

5. $\dfrac{x^3+y^3}{x^4+x^3y+x^2y^2-x^2y^2-xy^3-y^4}$

6. $\dfrac{6x^2-x-2}{9x^2-12x+4}$

7. $\dfrac{x^3-8}{x^4+2x^3+4x^2+4x^2+8x+16}$

8. $\dfrac{9x^2-4y^2-12x+8y}{9x^2-4y^2+12x-8y}$

9. $\dfrac{x^4-81}{x^3+x^2-9x-9}$

10. $\dfrac{x^3+4x^2+x-6}{x^3-1}$

11. $\dfrac{x^3+2x^2-11x+8}{x^2-6x+5}$

12. $\dfrac{6a^3-7a^2-14a+15}{a^2-8a+7}$

13. $\dfrac{y^3-7y-6}{y^2-y-6}$

14. $\dfrac{p^4-15p^2-10p+24}{p^3-p^2-12p}$