Math 1215 Hw8 Name…….

Simplify the following rational expressions.

1. $\frac{x-y}{y-x}$

2. $\frac{4x+8}{x+2}$

3. $\frac{x+5}{x^2-25}$

4. $\frac{x^2-2x-15}{x^2+10x+21}$

5. $\frac{x^2-36}{x^2+12x+36}$

6. $\frac{6x^2-5x-1}{10x^2+9x-19}$

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

8. $\dfrac{x^2+x-6}{x^2+3x-4}\cdot\dfrac{x^2-6x+5}{x^2-2x-15}$

9. $\dfrac{x^2-x-2}{x^2+8x+15}\cdot\dfrac{x^2-x-12}{x^2-9x+14}$

10. $\dfrac{4x^2-9}{x^2-10x+25}\div\dfrac{2x-3}{x-5}$

11. $\dfrac{x^2-3x-10}{x^2-3x-28}\div\dfrac{x^2-x-6}{x^2+x-12}$

12. $\dfrac{x}{x+3}+\dfrac{4}{x-5}$

13. $\dfrac{x-4}{x+1}-\dfrac{x-2}{x-1}$

14. $\dfrac{\dfrac{x^2 y}{x+y}}{xy}$

15. $\dfrac{\dfrac{x}{3}+\dfrac{x}{2}}{\dfrac{x}{3}-\dfrac{x}{2}}$

Solve:

16. $\dfrac{5}{7}+\dfrac{9}{t+3}=2$

17. $\dfrac{3}{x-1}+\dfrac{12}{5}=3$

18. $\dfrac{7}{9}-\dfrac{x+8}{x+1}=-1$