**EMA Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Solving Rational Expressions – Day 1 Period\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_**

**Solve each equation**.

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

3. $\frac{4}{x^{2}}=\frac{5}{x}-\frac{1}{x^{2}}$ 4. $\frac{3x+15}{4x^{2}}=\frac{1}{x^{2}}-\frac{x-3}{4x^{2}}$

5. $\frac{x-6}{x}=\frac{x+4}{x}+\frac{1}{1}$ 7. $\frac{1}{2x}+\frac{1}{4x^{2}}=\frac{1}{4x}$

9. $\frac{1}{x}=\frac{6}{5x}+1$ 11. $\frac{4}{8x^{2}}=\frac{1}{4x}-\frac{11}{12x^{2}}$

13. $-1+\frac{1}{x-8}=\frac{7}{x-8}$ 15. $\frac{1}{x}+\frac{1}{x^{2}-x}=\frac{5}{x^{2}-x}$

17. $\frac{x-6}{3x}=\frac{x^{2}-5x-24}{3x}+1$ 19. $\frac{1}{x^{2}-3x}+\frac{1}{x-3}=\frac{3}{x^{2}-3x}$

21. $\frac{6}{x^{2}-6x+8}=\frac{1}{x^{2}-6x+8}-\frac{1}{x-4}$ 23. $\frac{1}{x-2}+\frac{1}{x^{2}-7x+10}=\frac{6}{x-2}$

25. $\frac{x+5}{x^{2}+x}=\frac{1}{x^{2}+x}-\frac{x-6}{x+1}$ 27. $\frac{5}{x^{3}+5x^{2}}=\frac{4}{x+5}+\frac{1}{x^{2}}$

Retro Question – solve the following quadratic equation using the **quadratic formula**.

29. $3x^{2}-5x+4=x^{2}+5x-3$