HW #13: SHOW ALL WORK on the worksheet.

Solve the equation. Check for extraneous solutions.

1. $-\frac{5}{j+4} = j-2$

2. $\frac{3}{k^2-1} = \frac{3}{k+1}$

3. $\frac{x^2}{x+2} = \frac{4}{x+2}$

4. $\frac{d}{d+4} + \frac{d}{d+9} = 1$

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

Perform the indicated operation(s) and simplify.

6. $\frac{9}{x+3} + \frac{2}{x-3}$

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

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

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9. $\dfrac{(x+2)^2}{x-5} \cdot \dfrac{x^2-2x}{x^2-4}$

.

10. $\dfrac{x^2+9x+18}{x^2-9} \div \dfrac{x+6}{x-6}$

11. $\dfrac{x+2}{x+9} \cdot \left[\dfrac{x^2+9x}{x^2-4} \div \dfrac{3x^2+6x}{x^2+2x} \right]$

.

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

.

13. $\dfrac{x^2+8x-20}{5x^3+50x^2} \div \dfrac{x^2+9x}{x^2+7x-18}$