Butterworth Math 120 Paper HW 9 , due 4/2

Reminders: Please **show all your work** neatly on this worksheet.
This should be some of your most careful work!

Name: _____

	Show your work neatly (when relevant). Place your answer in the box at the right	
1.	Subtract: $\frac{2x^2 - 4x}{3x^2 - 6x} - \frac{x^2 + x - 6}{3x^2 - 6x}$.	
2.	Find f(x) + g(x) where f(x) = $\frac{x^2 - 4x}{x^2 + 3x - 4}$ & g(x) = $\frac{6x - 8}{x^2 + 3x - 4}$	
3.	Find the least common denominator for: (4x + 12) & (6x + 18)	
4.	Add: $\frac{1}{p + 2} + \frac{4}{p^2 - 4}$.	
5.	Subtract: $\frac{3}{x^2 - 9} - \frac{2}{x^2 - 2x - 3}$.	

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6.	Add: $3 + \dfrac{x+2}{x-5}$.	
7.	Simplify the following complex fraction using the LCD method. $\dfrac{\frac{2}{y-3} + \frac{5}{y-2}}{\frac{3}{y-2} - \frac{4}{y-3}}$	
8.	Find $^{g(x)}/_{f(x)}$ for: $f(x) = \dfrac{x^2 + x - 30}{2x^2 - 12x}$ & $g(x) = \dfrac{x^2 - 25}{5x - 30}$.	
9.	Solve. Be sure to state the restrictions. $6 - \dfrac{8}{x} = 3 + \dfrac{4}{x}$	
10.	Solve. Be sure to state the restrictions. $\dfrac{4x^2 - 24x}{3x^2 - x - 2} + \dfrac{3}{3x+2} = \dfrac{-4}{x-1}$.	