QUIZ 8 - MATH 102

Friday, March 10

YOUR NAME:_____

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Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Find the domain of the function $f(x) = \dfrac{x^2 - 3x - 4}{2x^3 - 18x}$.

2. Perform the indicated operations and reduce the result to lowest terms:

   (a) $\dfrac{10x + 5}{5x^2 + 5} \cdot \dfrac{2x^2 + x - 1}{4x^2 - 1} =$

   (b) $\dfrac{5 - 10x}{x^2 - 2x} \div \dfrac{2x^2 + 7x - 4}{x^2 + 2x - 8} =$

3. Add and reduce the result to lowest terms

$$\frac{2x^2}{2x^3 - 18x} + \frac{15}{5x - 15}.$$