Math 105 Sample Skill Quiz 4 Lessons 9, 10, and 11

5 1. Multiply and simplify completely: $\frac{3z+18}{z-2} \cdot \frac{z-2}{z^2+2z-24}$.

5 2. Add and simplify completely: $\frac{d^2}{d-2} + \frac{4}{2-d}$

5 3. Solve. Make sure to check for extraneous solutions. If no solution exists, state this:

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

5 4. In your own words, explain the inverse operation for rational equations. Then, explain how to use this inverse to solve rational equations. (Hint: see problem 3 above.)