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## Math 105 Sample Skill Quiz 4 <br> Lessons 9, 10, and 11

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

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.)

