Sensible and Reasonable Math Phrases Handout-Answers (Otherwise Known As Rational Expressions Handout)

1. Simplify $\frac{6x}{3x^2+6x}$.

   $\frac{2}{x+2}$

2. Simplify $\frac{5x+10}{x^2+7x+10}$.

   $\frac{5}{x+5}$

3. Add $\frac{4}{x+4} + \frac{5}{x+5}$.

   $\frac{9x+40}{(x+4)(x+5)}$

4. Subtract $\frac{1}{x} - \frac{1}{x-1}$.

   $\frac{-1}{x(x-1)}$

5. Multiply $\frac{b^2}{b-1}$ by $\frac{b^2-1}{b^3+b^2}$.

   1

6. Multiply $\frac{a-1}{a^2-9}$ by $\frac{a^2-4a+3}{a^2-1}$.

   $\frac{a-1}{(a+3)(a+1)}$

7. Divide $\frac{x^3}{x-1} \div \frac{x^2}{x-1}$.

   x

8. Divide $\frac{x^2-2x+1}{x^2+x-2} \div \frac{x^2-1}{x^2-x-6}$.

   $\frac{x-3}{x+1}$

9. Simplify $\frac{\frac{y^4}{y^4-1}}{\frac{y^3}{y^2-1}}$.

   $\frac{y}{y^2+1}$

10. Simplify $\frac{\frac{b^2-1}{b^2+5b+6}}{\frac{2b^2-2b}{2b^2+6b}}$.

    $\frac{b+1}{b+2}$