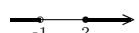
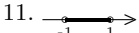


Review 4A

MAT 105

Show all of your work.

1. Multiply and simplify: $\frac{x-1}{x^2-4} \cdot \frac{x^2-4x+4}{x^2-3x+2}$
2. Divide and simplify: $\frac{x^2-4x-5}{2x^2+x-1} \div \frac{2x-10}{2x^2-3x+1}$
3. Multiply and simplify: $\frac{1-x^2}{x-2} \cdot \frac{1}{x-1}$
4. Add and simplify: $\frac{2x}{x+1} + \frac{3}{x+5}$
5. Subtract and simplify: $\frac{x-1}{x^2-5x+6} - \frac{x}{x^2-4x+3}$
6. Simplify $\frac{\frac{2}{x}-2}{\frac{4}{x}-2}$.
7. Simplify $\frac{\frac{xy}{(x-1)(y-1)}}{\frac{x}{x-1} + \frac{y}{y-1}}$.
8. Solve $\frac{x}{6} - \frac{1}{7} = \frac{1}{42}$.
9. Solve $\frac{x}{x-2} - \frac{2}{x^2-3x+2} = \frac{2}{x-1}$.
10. Solve and graph the solution set of $\frac{x-2}{x+1} \geq 0$.
11. Solve and graph the solution set of $\frac{2x-1}{x+1} < \frac{1}{2}$.


Answers to problems above: 1. $\frac{1}{x+2}$ 2. $\frac{x-1}{2}$ 3. $-\frac{x+1}{x-2}$ 4. $\frac{2x^2+13x+3}{(x+1)(x+5)}$ 5. $\frac{1}{(x-3)(x-2)(x-1)}$ 6. $\frac{1-x}{2-x}$ 7. $\frac{xy}{2xy-x-y}$ 8. $x = 1$ 9. No
 Solution 10.  11. 

Review 4B

MAT 105

Show all of your work.

1. Multiply and simplify: $\frac{2x - 12}{x^2 + 5x + 4} \cdot \frac{x^2 + 2x + 1}{x^2 - 5x - 6}$
2. Divide and simplify: $\frac{2x^2 - 5x - 3}{x^2 - 2x - 3} \div \frac{2x^2 - x - 1}{2x + 2}$
3. Add and simplify: $\frac{x}{x - 5} + \frac{5}{5 - x}$
4. Add and simplify: $\frac{10}{2x + 1} + \frac{x - 1}{3x + 1}$
5. Subtract and simplify: $\frac{2x}{x^2 - 2x + 1} - \frac{x - 1}{x^2 - 1}$
6. Simplify $\frac{1 + \frac{1}{x}}{1 - \frac{1}{x}}$.
7. Simplify $\frac{1 - \frac{4}{y + 3}}{1 + \frac{1}{y - 2}}$.
8. Solve $\frac{1}{6x} + \frac{2}{3x} = \frac{1}{4}$.
9. Solve $1 - \frac{1}{x + 3} = \frac{3}{x^2 + 3x}$.
10. Solve and graph the solution set of $\frac{x}{x + 4} \leq 0$.
11. Solve and graph the solution set of $\frac{x + 6}{x - 3} > -8$.

Answers to problems above: 1. $\frac{2}{x+4}$ 2. $\frac{2}{x-1}$ 3. 1 4. $\frac{2x^2+29x+9}{(2x+1)(3x+1)}$ 5. $\frac{x^2+4x-1}{(x+1)(x-1)^2}$ 6. $\frac{x+1}{x-1}$ 7. $\frac{y-2}{y+3}$ 8. $x = \frac{10}{3}$ 9. $x = 1$ 10.  11. 