

**Kerry Ojakian's MTH 28 Class
Class Assignment #13**

1. Solve the following equations (no complex solutions unless allowed):

(a) $(x - 8)(x - 8)(x)(2x + 1) = 0$

(b) $\frac{3}{x - 10} = \frac{-3}{x - 10}$

2. Solve.

(a) $\frac{x}{4} = \frac{x}{12} + \frac{1}{2}$

(b) $\frac{5}{4x} - \frac{1}{2} = \frac{1}{2x}$

3. Solve.

(a) $\frac{9}{x} + 2 = \frac{2x}{x + 3}$

(b) $\frac{11}{x + 2} - \frac{5}{x^2 - x - 6} = \frac{1}{x - 3}$

4. Solve each equation:

$$(a) \frac{3}{2} - \frac{2}{2x-4} = \frac{1}{x-2}$$

$$(b) \frac{3y}{2+y} - \frac{2}{y+3} = \frac{36}{y^2+5y+6}$$

5. Solve the equation. $\frac{7}{x} - \frac{2}{x-3} = \frac{6}{x}$

6. Solve. $\frac{2}{x+1} + \frac{1}{x-1} = \frac{1}{x^2-1}$

7. Solve. $\frac{x}{x+4} = \frac{32}{x^2 - 16} + 5$

8. Solve. $\frac{2}{x+7} - \frac{3}{x-3} = 1$

9. Solve. $\frac{x-10}{x^2 - 5x + 4} = \frac{3}{x-1} - \frac{6}{x-4}$

10. Solve. $\frac{15}{x^2 + x - 6} - \frac{3}{x - 2} = \frac{2}{x + 3}$

11. Solve. $\frac{5}{x^2 + 2x - 3} - \frac{3}{x^2 + x - 2} = \frac{1}{x^2 + 5x + 6}$

12. Solve. $\frac{x}{5x - 10} - \frac{5}{3x + 6} = \frac{2x^2 - 19x + 54}{15x^2 - 60}$