Name:_____   Date:_____

PC: Solving Rational Equations and Inequalities Graphically Homework

Please answer BOTH questions showing all necessary steps in the spaces provided on this sheet. It will be *collected* tomorrow.

1. Solve the following equation graphically by doing each of the following:

      (a) Draw a complete graph of the function showing all intercepts and asymptotes.

      (b) Write the window settings you use on your graph.

      (c) Find the solution set

$$\frac{10}{x^2} + \frac{30}{(10-x)^2} = 4$$

2. Solve the following rational inequality below graphically by doing the following:

    (a) Draw a complete graph of the function showing all intercepts and asymptotes.

    (b) Write the window settings you use on your graph.

    (c) **(Optional)** Using your graph, draw a number line with critical points that shows the values of x that satisfy the inequality.

    (d) State the solution set using both set builder notation and interval notation.

$$\frac{2}{x} + \frac{1}{2x} \le 7$$