Name _____
Period _____ Date _____

Practice 1.1.3 pt. 2

Remember to show your work!

1-41. Where is the error in the solution below? Explain what the error is and solve the equation correctly. Be sure to check your answer.

$\frac{5}{x} = x - 4$
$x \cdot \frac{5}{x} = x - 4$
$5 = x - 4$
$x = 9$

Error:

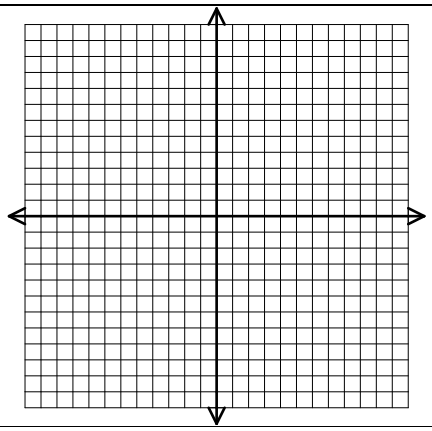
Corrected Solution:

1-42. Create a table and graph for the function $g(x) = \frac{2}{x}$. Then completely describe the graph using the following attributes from Section 1.12.

- shape
- domain and range
- line of symmetry
- endpoints
- opens upward or downward
- maximum or minimum points
- **asymptotes (see notes for 1.1.3)**
- continuous or discrete
- increasing or decreasing
- whether it is a function
- x- and y-intercepts

Table:

x	y



Description:

1-43. The temperature of a boxed pizza carried home depends on how long it has been out of the oven. Sketch a reasonable graph of this situation. **Be sure to label the axes**.

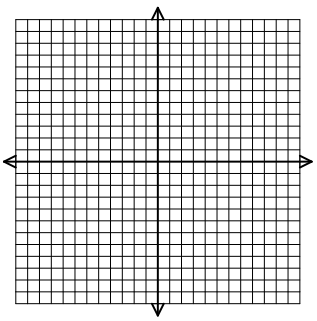
Should your graph have an asymptote? Why or why not?

1-47. Although the Quadratic Formula always works as a strategy to solve quadratic equations, it is not always the most efficient method. For example, sometimes, a faster method is to factor and use the Zero Product Property. For each equation below, choose the method you think is most efficient to solve the equation.

a. $x^2 + 7x - 8 = 0$	b. $(x + 2)^2 = 49$
c. $5x^2 - x - 7 = 0$	d. $x^2 + 4x = -1$

1-48. Graph the line y = 3x + 3.

a. Sketch the line that is **perpendicular to** y = 3x + 3 that passes through the point (–3,2).



b. Write the equation of the perpendicular line.