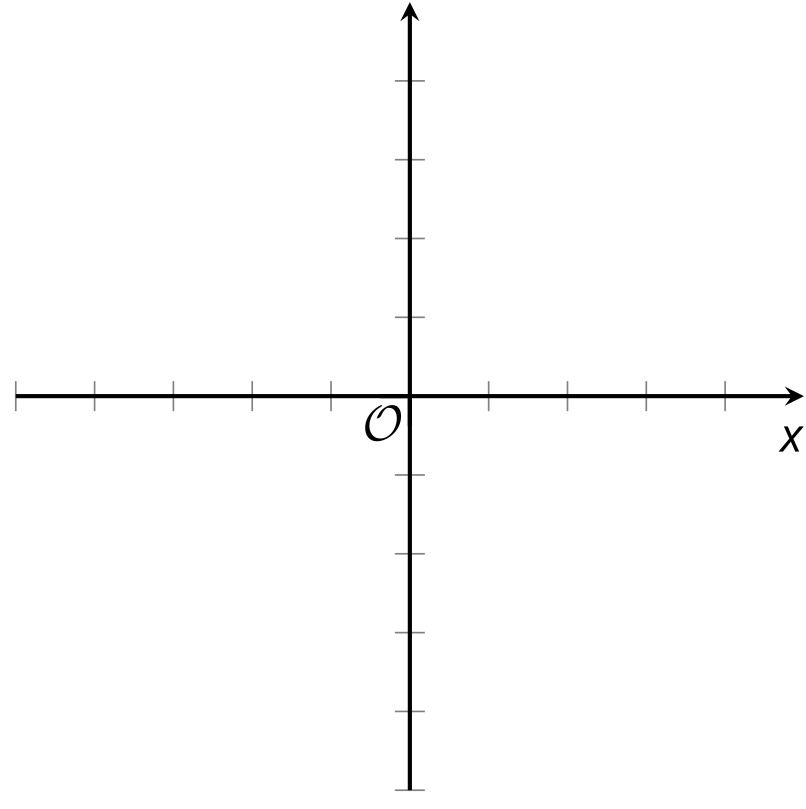
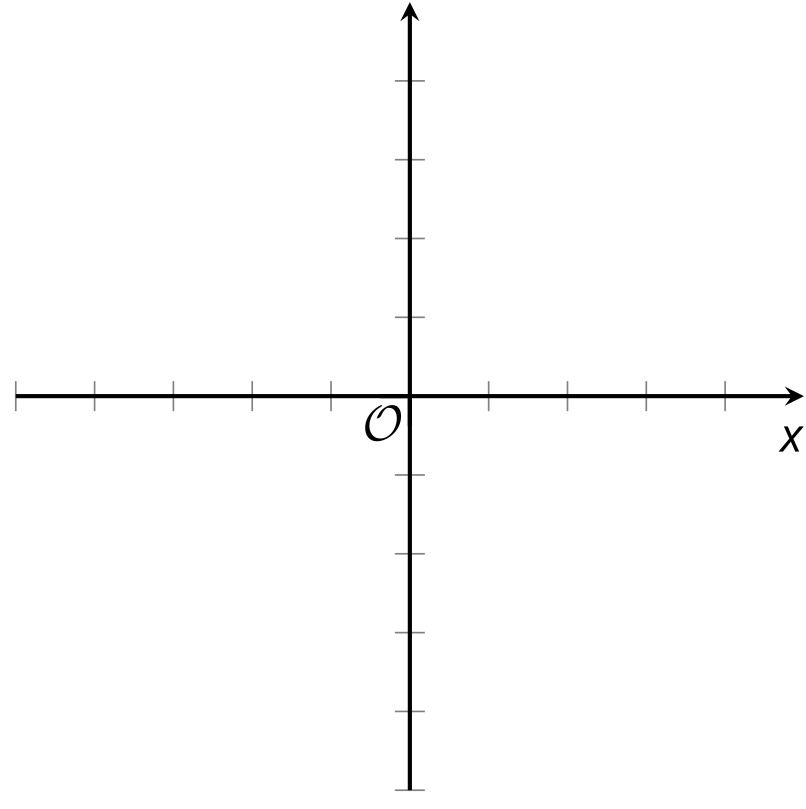
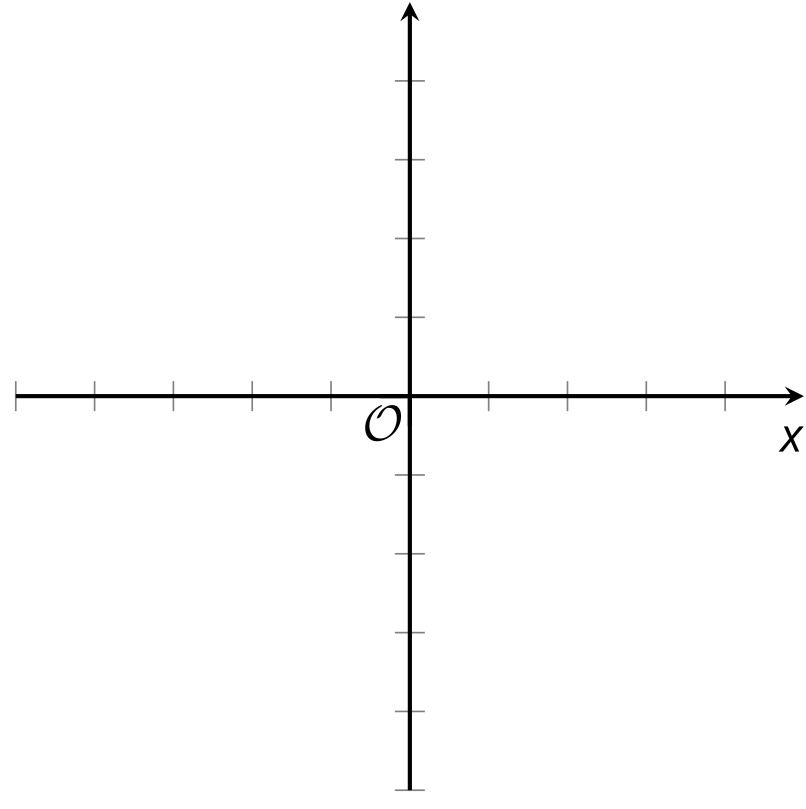
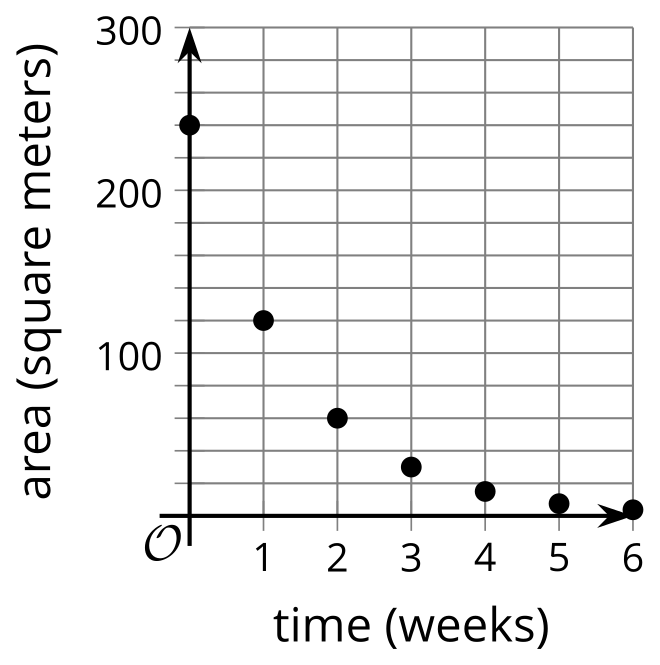
### Lesson 5 Practice Problems

1. Rewrite each equation so that the expression on one side could be graphed and the -intercepts of the graph would show the solutions to the equation.
   1. Here are equations that define quadratic functions , and . Sketch a graph, by hand or using technology, that represents each equation.
   * 
   * 
   * 
   1. Determine how many solutions each , and has. Explain how you know.
2. Mai is solving the equation . She writes that the solutions are and . Han looks at her work and disagrees. He says that only is a solution. Who do you agree with? Explain your reasoning.
3. The graph shows the number of square meters, , covered by algae in a lake weeks after it was first measured.

* In a second lake, the number of square meters, , covered by algae is defined by the equation , where is the number of weeks since it was first measured.
* 
* For which algae population is the area decreasing more rapidly? Explain how you know.
* (From Unit 5, Lesson 6.)

1. If the equation  is true, which is also true according to the zero product property?
   1. only
   2. only
   3. or
   4. or

* (From Unit 7, Lesson 4.)
  1. Solve the equation .
  2. Show that your solution or solutions are correct.
* (From Unit 7, Lesson 3.)

1. To solve the quadratic equation , Andre and Clare wrote the following:

* Andre
* Clare
  1. Identify the mistake each student made.
  2. Solve the equation and show your reasoning.
* (From Unit 7, Lesson 3.)

1. Decide if each equation has 0, 1, or 2 solutions and explain how you know.



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