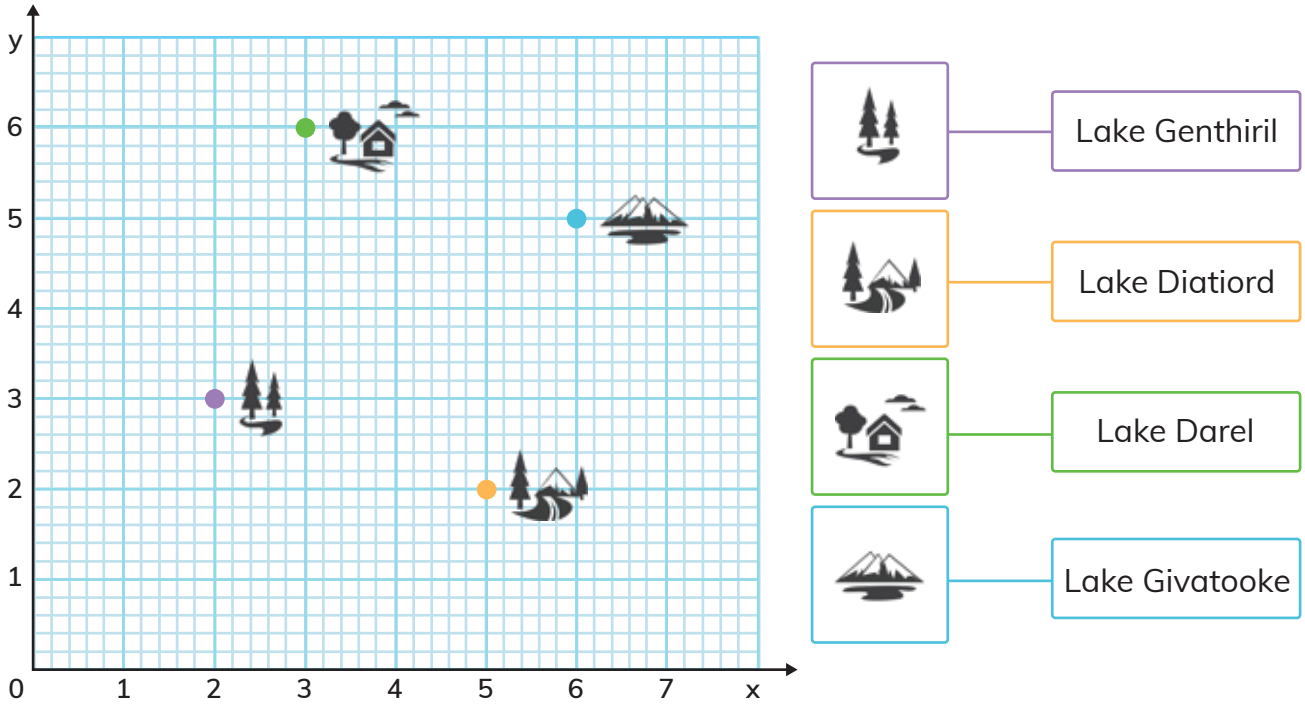
Create a table from an equation (and vice-versa) relating independent and dependent variables set in math and real-life contexts. Create a graph of a two-variable equation using a table.

CCSS.MATH.CONTENT.6.EE.C.9 | G6M5C29

You completed your research for the water bodies of Carington City. Now, you have to assist your friend who is working on a similar research project for the water bodies of a neighboring city, Burnsley.

1 Burnsley City has four lakes—Lake Genthiril, Lake Diatiord, Lake Darel, and Lake Givatooke. The graph given below depicts the locations of these lakes in the city. Now, help your friend match the lakes with their correct locations as per the following graph:



Lake Genthiril ●	● (6,5)
Lake Givatooke ●	● (3,6)
Lake Darel ●	● (5,2)
Lake Diatiord ●	● (2,3)

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2 The table given below shows the relation between the number of pollutants in the lakes and the number of aquatic species living in them.

Number of pollutants (x)	Number of aquatic species (a)
0	15
1	13
2	11
3	9

Check ✓ the box(es) that represent the correct statement(s) for the data provided in the table.

- ☐ **x** is the independent variable and **a** is the dependent variable.
- ☐ **a** is the independent variable and **x** is the dependent variable.
- ☐ As the number of pollutants increases, the number of aquatic species decreases.
- ☐ As the number of pollutants decreases, the number of aquatic species decreases.

After analyzing the above information, you come up with the following equation:

$$a = 15 - 2x$$

Now, calculate the number of species (a) left in the lake if the number of pollutants (x) increases to four. Write your answer in the box given below.

Number of pollutants: x = 4 Number of species: a = ☐

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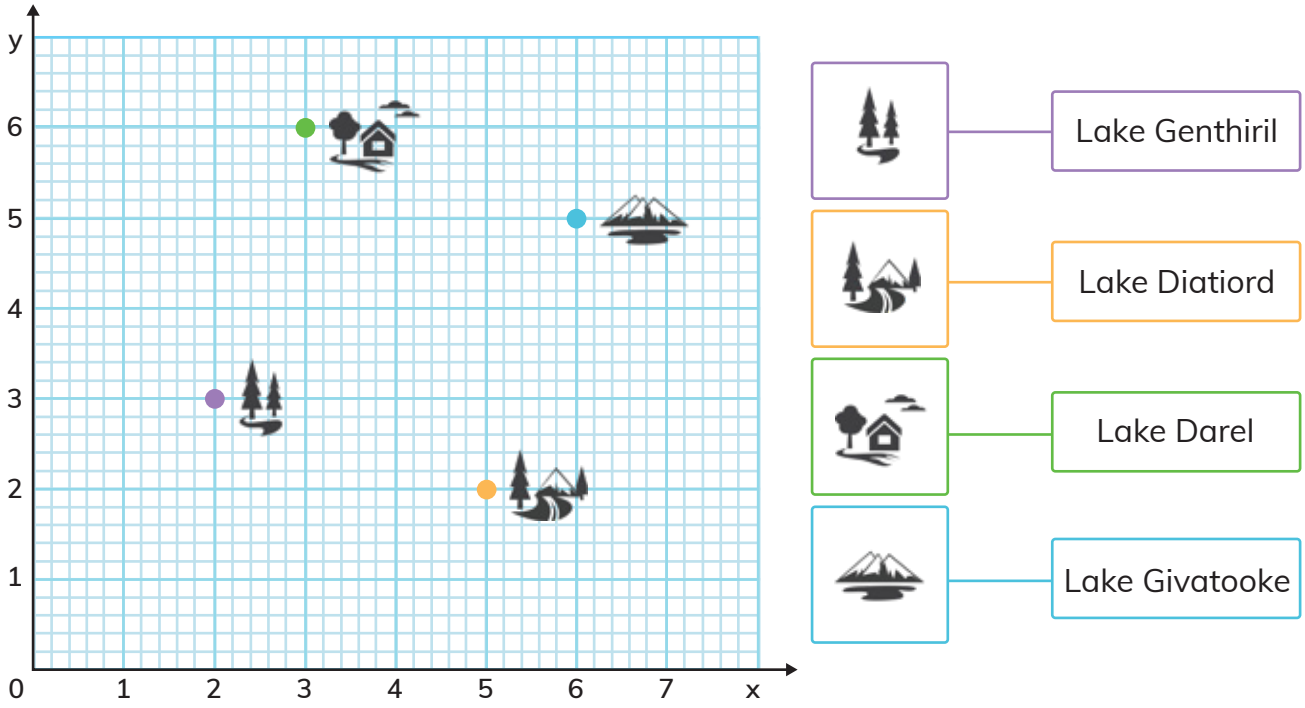

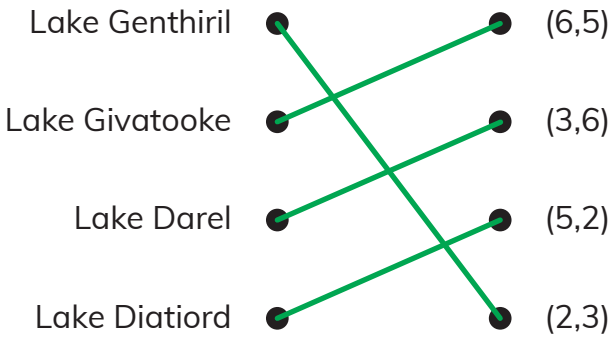

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After analyzing the above information, you come up with the following equation:

$$a = 15 - 2x$$

Now, calculate the number of species (a) left in the lake if the number of pollutants (x) increases to four. Write your answer in the box given below.

Number of pollutants: x = 4 Number of species: a = 7