

Name:

Answers!

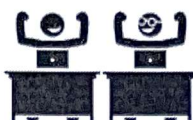
Class:



Communication



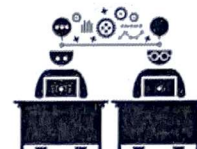
Successful Partnership



Encouragement



Solving Problem Together



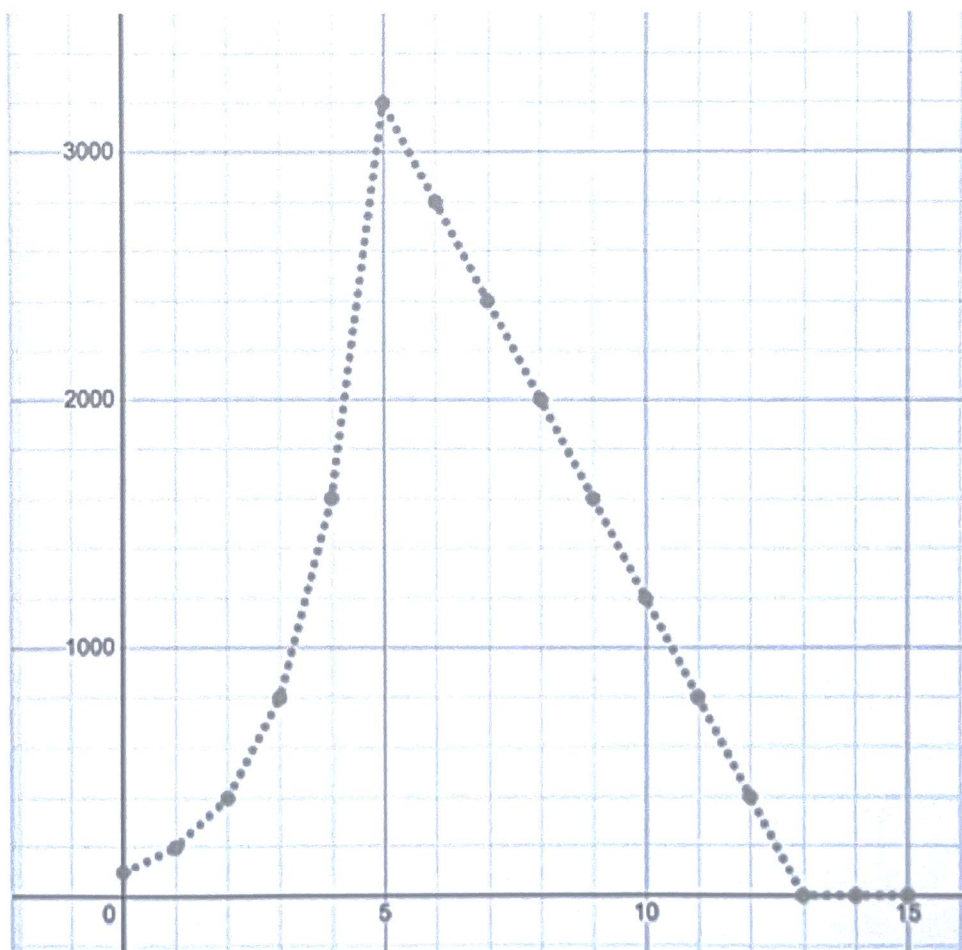
Collaboration

The table and graph below tell the story of an invasive algae bloom growing in a local town lake, and its remediation. Volunteers first noticed the algae bloom when it was 100 square meters.

In the below, $f(x)$ is the size of the algae bloom in square meters and x is the number of weeks since the bloom was first observed.

Remediation of the algae bloom (to get rid of it) cost \$5,000 per week.

x	$f(x)$
0	100
1	200
2	400
3	800
4	1600
5	3200
6	2800
7	2400
8	2000
9	1600
10	1200
11	800
12	400
13	0
14	0
15	0



Part A. How many square meters of algae does remediation clear every week?

400 square meters

Part B. How many weeks of remediation were needed in the example above?

8 weeks

Part C. How expensive was the remediation in the example above?

$$\$5000 \times 8 = \$40,000$$

Part D. If remediation started one week earlier, how much would have been saved?

\$20,000


Part E. If remediation started two weeks earlier, how much would have been saved?

\$30,000

Part F. If remediation started three weeks earlier, how much would have been saved?

\$35,000

Part G. If remediation started one week later, how much more would it have cost?

 \$40,000

Part H. When was the algae bloom only 25 square meters?

2 days before it
was first noticed