38 After a convention, 30 workers spent a total of 15 hours completely taking down equipment and cleaning the exhibit hall. The manager believes there is an inverse relationship between *w,* the number of workers, and *t,* the total time to complete the work. Which of these best describes that relationship?

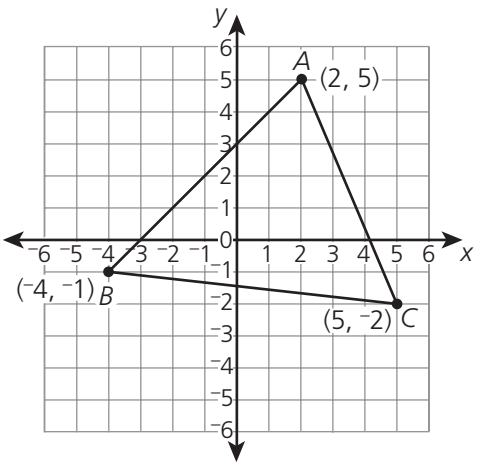
A $t = \frac{2}{w}$

B $t = \frac{w}{2}$

C $t = \frac{w}{450}$

D $t = \frac{450}{w}$

39 The coordinate grid below shows triangle *ABC*.



Triangle *ABC* is to be transformed so vertex *A′* will be at (2, −5). Which transformation will result in the correct location for vertex *A′*?

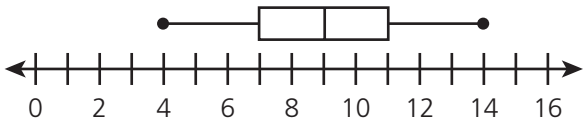
A reflection across the *y*-axis

B reflection across the *x*-axis

C rotation of 90° about the origin

D rotation of 180° about the origin

40 The box-and-whisker plot below shows the data collected during a study.



What appears to be the median of the data?

A 4

B 9

C 10

D 14

Question 41 is an open-response question.

- **Be sure to answer and label all parts of the question below.**
- **Show all of your work (diagrams, tables, or computations) below.**
- **If you do the work in your head, explain in writing how you did the work.**

41 Carmen purchased a new car three years ago for $20,000. The table below shows that the value of the car has been decreasing at the same rate each year since the purchase.

VALUE OF CARMEN'S CAR

Year	Value ($)
0	20,000
1	16,000
2	12,800
3	10,240
4	
5	

a. Complete the table to show the value of Carmen's car at the end of year 4 and year 5. Show or explain how you got your answers.

b. Carmen's aunt loaned her the $20,000 to purchase the car. Carmen recently repaid the loan at an annual rate of 5% interest compounded monthly for the 3 years. What amount of interest did Carmen pay her aunt for the loan? Show or explain how you got your answer.

Hint: The formula below can be used to determine *I,* the amount of interest when a loan of *P* dollars is repaid at a rate of *r* (the percent as a decimal), compounded monthly, for *n* months.

$$I = P\left(1 + \frac{r}{12}\right)^{n} - P$$

Answer: _____