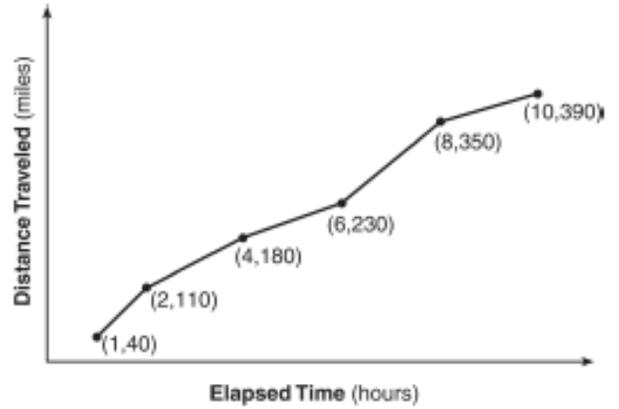


### Review for Test #13

1. What is the product of  $-2x^3y$  and  $-4xy^4$ ?
2. Solve for W:  $P = 4L + 3W$

3. The Jamison family kept a log of the distance they traveled during a trip, as represented by the graph below. How does the family's **average speed** of travel during the time frame of 2 to 4 hours compare to the family's **average speed** of travel during the time frame of 8 to 10 hours.



4. The sum of the ages of the 4 Boylan sisters is 38. If their ages can be represented as consecutive integers, what is the age of the oldest sister?

5. The function,  $f(x)$ , is shown in the table. Determine whether  $f(x)$  is a linear function. Explain your answer.

x	f(x)
4	21
7	16
10	11
13	6

6. If  $a = 5$  and  $b = -2$ , what is the value of  $ab - b^3$ ?
7. Describe an irrational number and give 3 examples.
8. Given the function  $f(x) = x^2 + 2x$ . Evaluate the function at  $f(-3)$ .

9. Solve the system of equations below?

$$\begin{aligned} 3x - 5y &= 16 \\ x + 5y &= 4 \end{aligned}$$

10. What is the value of  $x$  in the equation  $3(x - 2) = 36 - 4x$ ?

11. It costs \$750 to produce a commercial for the radio and \$55 each time the commercial airs. Write an equation to model this situation.

12. Subtract  $7x^2 + 9x + 7$  from  $3x^2 + 5x - 2$

13. Graph the following systems of inequalities on the axes below. Label the solution set S. State one point that is not part of any solution.

$$\begin{aligned} 4y &> -8x + 12 \\ x - y &\geq 2 \end{aligned}$$

14. Graph the piecewise function.

$$f(x) = \begin{cases} x + 4, & x < -2 \\ x^2 - 2, & x > -2 \end{cases}$$

15. Graph the solution set of  $2x - 4 > 12$  and  $x + 4 \leq 7$ ?

16. Graph the system of inequalities :

$$\begin{aligned} y + x &< 3 \\ y &\geq 2x - 2 \end{aligned}$$