AGS 2 Module 4.1 Homework

Name\_\_\_ Period

Use the graph to find the indicated function value.



5. London lives 3 miles away from his school. School ended at 3 pm and London began his walk home with his friend Josh who lives 1 mile away from the school, in the direction of London's house. London stayed at Josh's house for a while and then started home. On the way, he stopped at the library. Then, he hurried home. The graph at the right is a piecewise-defined function that shows London's distance from home during the time it took him to arrive home.



- a. How much time did it take London to get home?
- b. How long did Isaac stay at Josh's house?
- c. How far is the library from Josh's house?

d. Where was London 3 hours after school ended?

e. 
$$f(3) =$$

f. When was London walking fastest? How fast was he walking? 6. A parking garage charges \$3 for the first two hours that a car is parked in the garage. After that, the hourly fee is \$2 per hour. Write a piecewise function p(x) for the cost of parking a car in the garage for x hours. The graph of p(x) is shown.



7. Lexie completed an 18-mile triathlon. She swam 1 mile in 1 hour, bicycled 12 miles in 1 hour, and then ran 5 miles in 1 hour. The graph of Lexie's distance versus time is shown. Write a piecewise function L(t) for the graph.



Write the equation of the line (in point-slope form) that contains the given slope and point.

8. *p*: (1, 2); m = 3 9. *p*: (1, -2); m = -1 10. p: (5, -1); m = 2

## Write the equation of the line (in point-slope form) that contains the given points.

11. *K* (0, 0); *L* (-4, 5) 12. *X* (-1, 7); *Y* (3, -1) 13. *T* (-1, -9); *V* (5, 18)

Solve:

14. |x| = 7 15. |x + 4| = 11 16. |x - 6| = 3