

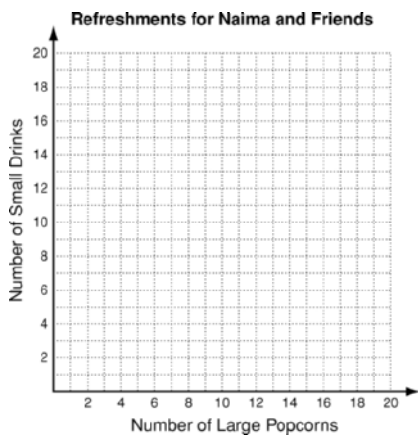
**LESSON**  
**5-2**

# Problem Solving

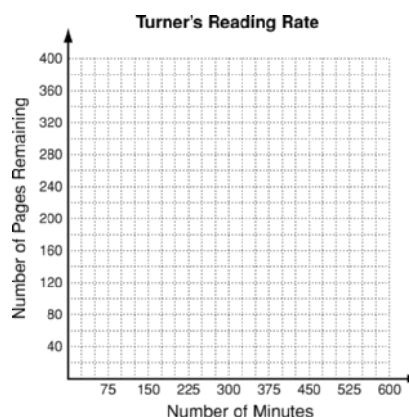
## Using Intercepts

Write the correct answer.

1. Naima has \$40 to spend on refreshments for herself and her friends at the movie theater. The equation  $5x + 2y = 40$  describes the number of large popcorns  $x$  and small drinks  $y$  she can buy. Graph this function and find its intercepts.

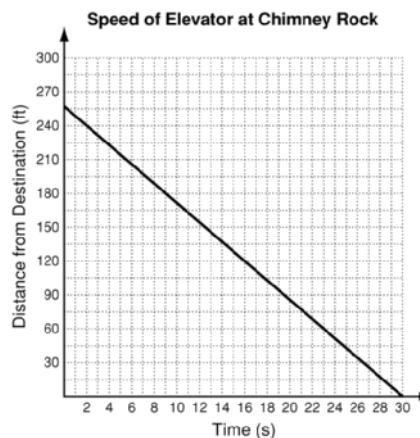


2. Turner is reading a 400-page book. He reads 4 pages every 5 minutes. The number of pages Turner has left to read after  $x$  minutes is represented by the function  $f(x) = 400 - \frac{4}{5}x$ . Graph this function and find its intercepts.



The graph shows the distance of an elevator at Chimney Rock, North Carolina, from its destination as a function of time. Use the graph to answer questions 3–6. Select the best answer.

3. What is the x-intercept of this function?  
 A 0                      C 258  
 B 30                      D 300
4. What does the x-intercept represent?  
 F the total distance the elevator travels  
 G the number of seconds that have passed for any given distance  
 H the number of seconds it takes the elevator to reach its destination  
 J the distance that the elevator has traveled at any given time
5. What is the y-intercept for this function?  
 A 0                      C 258  
 B 30                      D 300



6. What does the y-intercept represent?  
 F the total distance the elevator travels  
 G the number of seconds that have passed for any given distance  
 H the number of seconds it takes the elevator to reach its destination  
 J the distance that the elevator has traveled at any given time