## STUDY LINK <br> $10 \cdot 6$ <br> Interpreting Tables and Graphs

Natasha is 12 years old and runs an average of 6 yards per second. Derek is 8 years old and runs about 5 yards per second. Natasha challenged Derek to an 80-yard race and told him she would win even if he had a 10-yard head start.

1. Complete the table showing the distances Natasha and Derek are from the starting line after 1 second, 2 seconds, 3 seconds, and so on.

| Time <br> (sec) | Distance (yd) |  |
| :---: | :---: | :---: |
|  | Derek |  |
| Start | 0 | 10 |
| 1 |  |  |
| 2 |  | 20 |
| 3 | 18 |  |
| 4 |  |  |
| 9 |  | 55 |
| 10 |  |  |
| 11 |  |  |
| 12 |  |  |
| 13 |  |  |


2. Use the table to write rules for the distance covered by Natasha and Derek.

Natasha's Rule: $\qquad$
Derek's Rule: $\qquad$
3. Graph the results of the race between Natasha and Derek on the grid above. Label each line.
4. a. Who wins the race? $\qquad$
b. What is the winning time? $\qquad$
c. At what time in the race did Natasha take the lead? $\qquad$

