

Number Line

Tom mows lawns in his neighborhood. From his house, he drives six blocks directly east to the Osborne home. His next stop is two blocks away and directly west of his first stop. His third stop is seven blocks west of his second lawn. In this problem, think of the number line as a compass where directions from zero to the east are positive and directions to the west are negative.



You will need the Number Line App loaded on your TI-73 Explorer™.

Read the instructions and download the App from education.ti.com/apps

Engage

1. Turn on your TI-73 Explorer and press **[APPS]**
2. Scroll down to find NUMLINE and press **[ENTER]**
3. Press any key to go through the beginning screens
4. On the Num/Frac Line screen, press **[ENTER]** on number 1: Number Line
5. Press **[WINDOW]** and set your screen like the one below
6. Then press **[GRAPH]** to return to the number line
7. Press **[CLEAR]** to erase all the other problems

Explore

1. Use zero on the number line as your starting point at Tom's house
2. Enter the stops that Tom made in his neighborhood
3. Press **[ENTER]** when you are finished to see Tom's path

Extend

1. Press **[TRACE]** and use the arrow keys to trace along each vector
2. Notice the ($x = \text{number}$) at the bottom left of the screen
3. How many blocks would Tom travel to get back to his home after he finished the third lawn?

Note: Press **[APPS]** for the Help menu. To get back to a previous screen, press **[2nd]** [QUIT]

