

Given the function  $f(x) = x^2 - 5x + 14$ , find the average rate of change over each interval.

6.  $[0, 4]$

X	Y
0	
4	

7.  $[4, 8]$

X	Y

8.  $[7, 10]$

X	Y

9. An average rate of change may also be found when there is no formula given. For instance, suppose the temperature at 1:00 PM was  $82^\circ$  and at 9:00 PM the temperature was  $70^\circ$ . What was the average rate of change of the temperature over that time interval?

10. The police have accused a driver of breaking the speed limit of 60 miles per hour. As proof, they provide two photographs. One photo shows the driver's car passing a toll booth at exactly 6 PM. The second photo shows the driver's car passing another toll booth 34 miles down the highway at exactly 6:30 PM. Does the photo evidence prove that the driver broke the speed limit during this time?