## MATH 151 Practice

1. On Saturday I took my bike out for a spin. I don't know how fast I was going, but I kept track of the mile markers on the road as I was going by. Here is a table of the mile markers at different times. What would be your best guess about how fast I was going at those times? What about my speed at 9:12? Be sure to keep track of the calculations you do and why you are doing them, and fill in your answers in the first table below.

Saturday | Time | Miles | Speed |
| :--- | :---: | :---: |
| $9: 00$ | 1.5 |  |
| $9: 05$ | 2 |  |
|  | $9: 10$ | 2.7 |
|  |  |  |
| $9: 15$ | 3.5 |  |
|  | $9: 25$ | 4.5 |
|  | $9: 30$ | 4.8 |
|  |  |  |

Sunday | Time | Speed | Miles |
| :--- | :---: | :---: |
| 9.00 | 8 |  |
| $9: 05$ | 5 |  |
| $9: 10$ | 7 |  |
| $9: 15$ | 10 |  |
| $9: 25$ | 9 |  |
| $9: 30$ | 5 |  |

2. On Sunday I rode my bike again, but this time I used a speedometer to determine how fast I was going, but I forgot to look at the mile markers. What would be your best guess about where I was on the road at those times? Again, be sure to keep track of your calculations, and fill in your answers in the second table above.
3. The data for my two bike rides are displayed graphically below. Characterize the calculations you did for the exercises above in terms of the geometry of the graphs. You may want to think about lines, rectangles, triangles, etc. Make sure your geometric characterization gives the same answers in the tables above.


4. Discuss what extra information you would want to get exact answers to the problems above. How would that extra information look graphically? How could you use the extra information to calculate exact answers?
