Math 21A
Koutba
An Example of ARC and IRC

Example: Assume that the following graph represents the number of miles $y$ traveled by a bicycle after $t$ hours.

1.) What is the bike's distance traveled for $t = \frac{1}{2}$ hr.? $t = 1$ hr.? $t = 1.5$ hr.? $t = 3$ hr.?
2.) What is the bike's average velocity (ARC) on the interval $[0, 1]$? $[0, 2]$? $[1, 2.5]$? $[0, 4]$?
3.) What is the bike's instantaneous velocity (IRC) when $t = \frac{1}{2}$ hr.? $t = 1.25$ hr.? $t = 3$ hr.? $t = 3.5$ hr.?
4.) Describe the bike's behavior for a.) $0 \leq t \leq 1$
b.) $1 \leq t \leq 1.5$ c.) $1.5 \leq t \leq 3$ d.) $3 \leq t \leq 4$
5.) When is the bike traveling fastest?