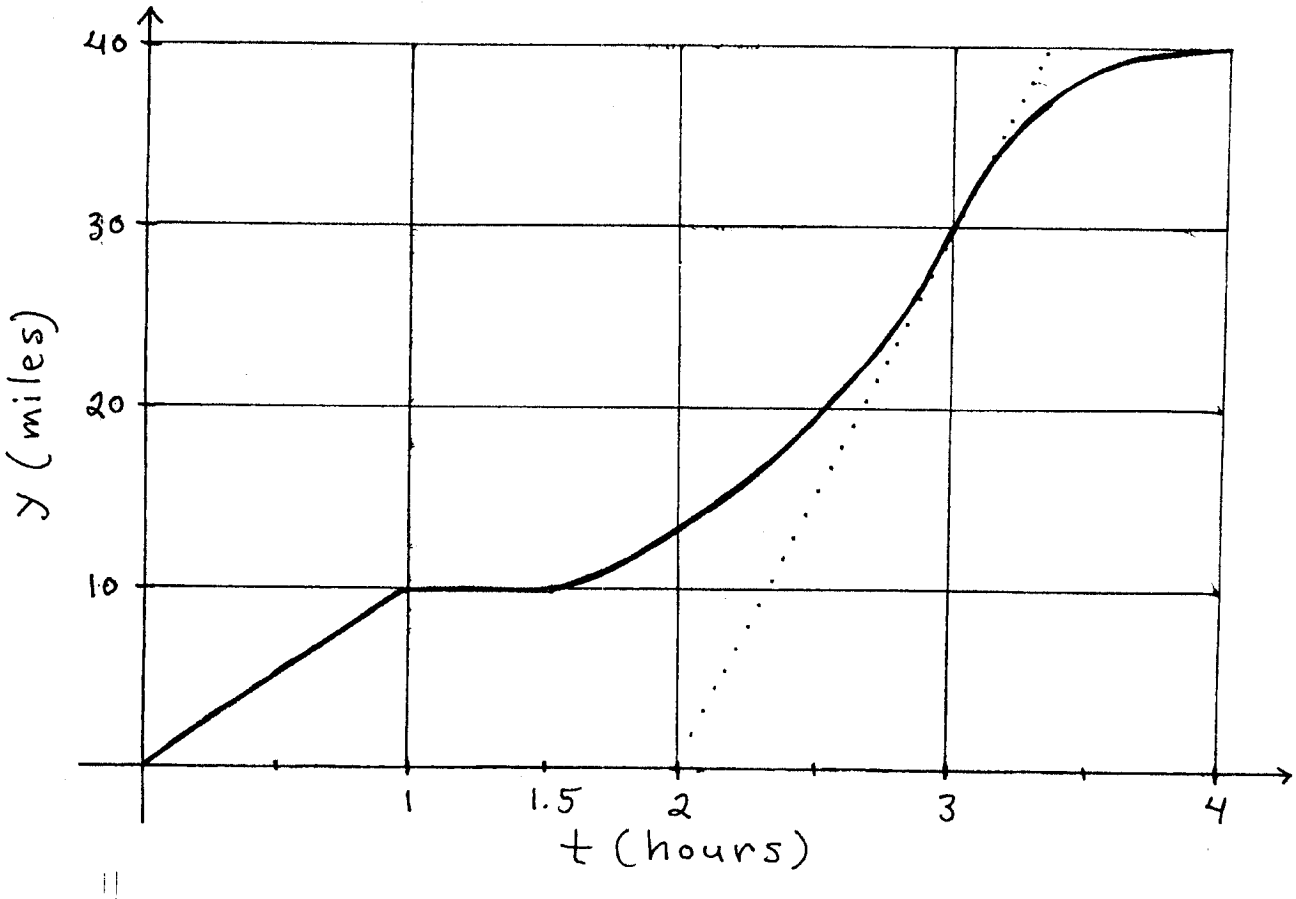
Math 21A
Kouba
an Example of ARC and IRC

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.) $0 \le t \le 1$ b.) $1 \le t \le 1.5$ c.) $1.5 \le t \le 3$ d.) $3 \le t \le 4$

5.) When is the bike traveling fastest?