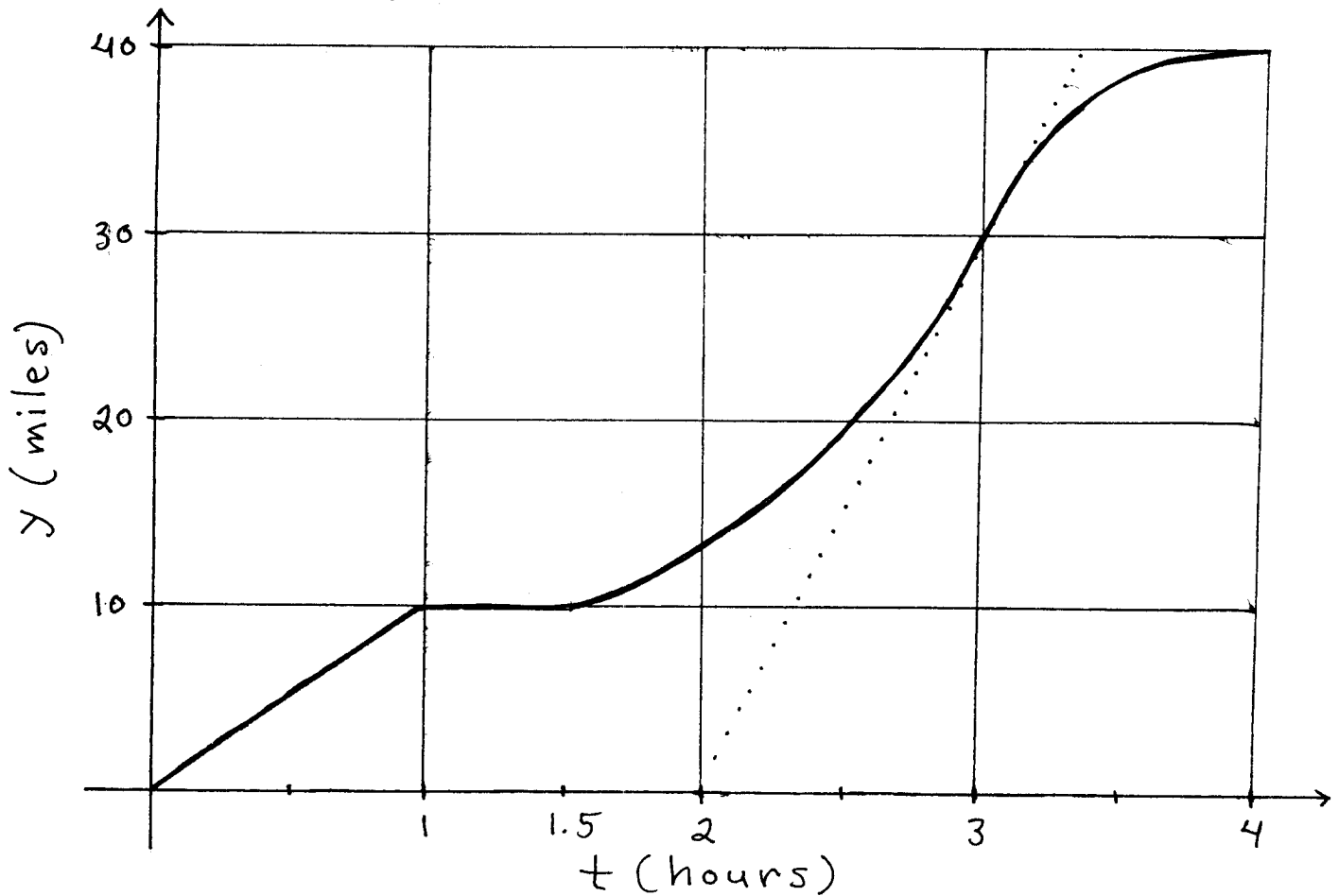


Math 16A

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.) $0 \leq t \leq 1$
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 ?