

Reading Outline, §2.5

Vocabulary/Definitions

- The second derivative
- What f'' says about f'
- What f'' says about f
- What it means about the rate of change of a function if $f'' > 0$ (or < 0)
- Average acceleration
- Instantaneous acceleration

Understand

1. If the function $f(x)$ is given by the following table, fill in estimates for $f'(x)$ and $f''(x)$.

$x =$	0	0.5	1	1.5	2
$f(x) =$	1	1.84	2.83	3.95	5.20
$f'(x) =$					
$f''(x) =$					

2. What can you say about the acceleration of the car being described in the following statement? “The car started at the corner of Jackson and Stadium. When the light turned green, it sped up to about 35mph and maintained that speed as it turned onto the entrance ramp to I-94. In the acceleration lane, it sped up to 80mph to merge with traffic. After a couple of miles it saw a police car and slowed down, but returned to its original speed immediately thereafter.”