

# Mathematics 122

Quiz #26

Name: Key

*You must show your work to get full credit.*

The following gives the speed,  $v$ , of a bicyclist who is accelerating.

$t$ in seconds	0	2	4	6
$v$ in feet/second	20	22	25	26

0 2 3

Find the following:

1. An upper bound for the distance she has covered.

$$2(22 + 25 + 26) = 146 \quad \text{Upper bound is } \underline{146}$$

2. An lower bound for the distance she has covered.

$$2(20 + 22 + 25) = 134 \quad \text{Lower bound is } \underline{134}$$

3. The best guess for the distance she has covered.

$$\text{The best guess is } \underline{140}$$

$$\text{The average of the above } \frac{134 + 146}{2} = 140$$