

Quiz #3

Name: Key

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

If the distance in miles,  $s$ , traveled by a car in  $t$  hours after a trip starts is given by

$t$	0.0	0.25	0.50	0.75	1.00
$s$	0	10	25	45	60

(1) What is the average speed for the entire trip? 60 mph.

$$\frac{\Delta s}{\Delta t} = \frac{60-0}{1.0-0.0} = 60$$

(2) What is the average speed for the first half of the trip?

$$\frac{\Delta s}{\Delta t} = \frac{25-0}{.5-0} = 50$$

50 mph

(3) During which quarter hour (i.e. the first, second, third or fourth) was the average speed the largest and what was the average speed during that quarter hour?

Which quarter hour? 3rd

Average speed during that quarter hour? 80

Look at table

		1st		2nd		3rd		4th
$t$	0.0	0.25		0.5		0.75		1.0
$s$	0	10		25		45		60
$\frac{\Delta s}{\Delta t}$		40		60		80		60
		"		"		"		"
		$\frac{10-0}{.25-0}$		$\frac{25-10}{.5-.25}$		$\frac{45-25}{.75-.5}$		$\frac{60-45}{1.0-.75}$

80 is largest