

# Quiz 3

Problem 5

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- a) She is stopped from about  $t=40$  to  $t=55$  which is approximately 15 seconds.
- b) At about 110 seconds or  $t=110$ .
- c) From about  $t=70$  to  $t=115$ . To see this, draw a horizontal line passing through 55 on the vertical axis and look at the coordinates of the two points of intersection the graph makes with your line.
- d) She drives at a constant speed of 30 mph between  $t=10$  and  $t=27$ . In other words, she drove at 30 mph for 17 seconds. Using the equation  $D=R \cdot T$  and realizing that  $17 \text{ sec} = \frac{17}{3600} \text{ hr}$  we get  $D = 30 \left( \frac{17}{3600} \right)$   
so  $D = \frac{17}{120} = 0.141\bar{6}$  miles travelled during this time period.