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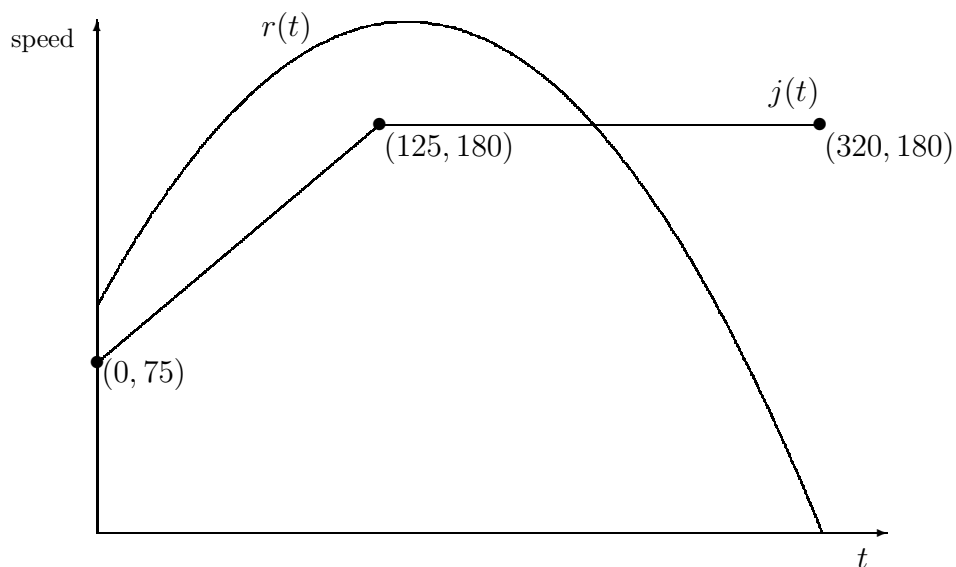
MATH 120A

QUIZ 3

April 17, 2003

You may use a calculator to complete this quiz. No notes please. Show all work.

Julio and Renee are racing in their rocket cars. The following gives the graph of each car's *speed* (in feet per second) at time t (in seconds) for $0 \leq t \leq 320$.



1. (4 points) Julio's speed graph is made up of two line segments. Give the multi-part rule for $j(t)$, Julio's speed at time t .

(over)

2. (3 points) Renee's speed is given by the quadratic function

$$r(t) = -\frac{1}{150}t^2 + 1.83t + 99.78.$$

What is Renee's maximum speed?

3. (3 points) When are Julio and Renee travelling at the same speed?