

Calculator Okay

On a certain workday, the rate, in tons per hour, at which unprocessed gravel arrives at a gravel processing plant is modeled by  $R(t) = 50 + 20\sin\left(\frac{t^2}{35}\right)$  where  $t$  is measured in hours and  $0 \leq t \leq 8$ .

- a) Evaluate  $R'(5)$  and interpret what it means in the context of the problem.
- b) What is the maximum rate the unprocessed gravel arrives at the plant during the hours  $0 \leq t \leq 8$ , on this workday? Justify your answer.

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