Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PreCalculus: Calculus Intro Unit – HW C3-6 Visca

**8.** *Draining a Tank* The number of gallons of water in a tank *t* minutes after the tank has started to drain is *Q*(*t*) = 200(30 – *t*)2. How fast is the water running out at the end of 10 min? What is the average rate at which the water flows out during the first 10 min?

**9.** *Particle Motion* The accompanying figure shows the velocity *v* = *f* (*t*) of a particle moving on a coordinate line.

**(a)** When does the particle move forward? move backward? speed up? slow down?

**(b)** When is the particle’s acceleration positive? negative? zero?

**(c)** When does the particle move at its greatest speed?

**(d)** When does the particle stand still for more than an instant?

















