1. An object moves along a straight line so that after $t$ minutes, its distance from its starting point is $D(t) = 10t + \frac{5}{t+1}$ meters.

1. At what speed is the object moving at the end of 4 minutes?
2. How far does the object actually travel during the fifth minute?

**pts: 7/5**

2. An efficiency study of the morning shift at a certain factory indicates that an average worker arriving on the job at 8:00am will have assembled

$$f(x) = -x^3 + 6x^2 + 15x$$

transistor radios $x$ hours later. Approximately how many radios will the worker assemble between 9:00am and 9:15am?

**pts: 7/5**