

Name: _____

Section: _____

MATH 120A
QUIZ 2
January 16, 2003

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

1. (4 points) Let $f(x) = 2x^2 + 7$. Compute $\frac{f(x+h) - f(x)}{h}$ and simplify as much as possible.

(over)

2. (6 points) Jean is walking through a park on her way to catch a bus. At 10:30, Jean is 120 feet east and 300 feet north of the bus stop. She walks in a straight line toward the bus stop.
- (a) Jean's bus is scheduled to arrive at 10:32. How fast, in feet per second, must Jean walk (or run) in order to make it to the bus stop precisely at 10:32?
- (b) There is a circular puddle with radius 10 feet whose center is 10 feet east and 24 feet north of the bus stop. Impose a coordinate system with the origin at the bus stop and give the coordinates of the point at which Jean first steps in the puddle.