

Name: _____

Section: _____

MATH 120E

QUIZ 1

You may use a scientific calculator to complete this quiz. No notes please.

1. A ten-foot ladder rests against a vertical wall. Let x be the distance between the bottom of the ladder and the wall. Let y be the distance between the top of the ladder and the ground.

- (a) If the bottom of the ladder is 5 feet from the wall, how far from the ground is the top of the ladder?

- (b) Suppose the bottom of the ladder is 5 feet from the wall and begins to slide away from the wall at a rate of 1 foot per second.
 - i. Give an expression for x after t seconds.

ii. Give an expression for y after t seconds.

iii. When will the top of the ladder hit the floor?

2. Find the equation of the line through the points $(7, 22)$ and $(10, 5)$.