

# KEY

Math 125-Quiz 0  
September 2, 2011

You have ten minutes to complete this quiz. No Calculators.

1. What two words summarize the study of Calculus?

CHANGE and AREA

2. We are selling hot dogs at Borleske Stadium. Each hot dog gets us \$3 profit. We must pay \$20 to rent the space at the stadium.

- (a) If  $h$  is the number of hot dogs being sold, express our profit as a function of  $h$ .

$$P(h) = 3h - 20$$

- (b) What is our profit from selling 80 hot dogs?

$$P(80) = 3(80) - 20 = \$220$$

- (c) What is the domain of this function?

$$h \geq 0 \quad (\text{we cannot sell negative hot dogs!})$$

- (d) What is the range of this function?

$$P(h) \geq -20 \quad (\text{If we sell none, we lose money!})$$