1. Let  where Yi is the number of hot dogs sold at an amusement park on a given day, Xi is the number of admission tickets sold that day, Zi is the daily maximum temperature, and ui is a random error.

a) State whether

each of  is a coefficient or a variable.

b) Determine the units of   and describe the interpretation of each.

c) What are your expectations for the signs of  (negative, zero, positive or

unsure)? Justify your answer.

d) Is it reasonable to allow for a non-zero intercept? Explain.