

Math 200 - Quiz 5

October 3, 2012

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (1 point) Let $A = \{1, 2, 3\}$ and $B = \{2, 5\}$. List the elements of $B \times A$.

2. (1 point) Suppose $A = \{1, 2, 3, x, y, z\}$. Determine $n(A \times \emptyset)$ and explain your reasoning.

3. (3 points) Upon leaving a local grocery store, 93 shoppers were asked about their purchases.
 - 23 bought eggs
 - 51 bought bread
 - 52 bought milk
 - 14 bought eggs and bread
 - 30 bought bread and milk
 - 8 bought eggs and milk
 - 6 bought eggs, bread, and milk
 - (a) Organize the data in a Venn diagram.

 - (b) How many shoppers bought none of these three items?

 - (c) How many shoppers bought only one of the three items?