

1. A letter is selected at random from the word "MISSISSIPPI"

a. (2pts.) What is the sample space for this experiment?

b. (2 pts.) Describe the event "the letter chosen is a vowel " as a subset of the sample space.

2. Let  $S = \{t, u, v, w, x, y, z\}$   
 $A = \{t, u, v\}$   
 $B = \{t, v, w\}$   
 $C = \{w, x, y, z\}$

Answer the following questions "yes" or "no".

a. (2 pts.) Are A and B mutually exclusive?

b. (2 pts.) Are B and C mutually exclusive?

c. (2 pts.) Are A and C mutually exclusive?