

Quiz Problem 4  
Due Sept. 30th, 11:59 pm EST

**Problem.**

Independently roll two fair six-sided dice. Let  $A$  be the event that the first die is a 3 and  $B$  be the event that the second die is a 4. Finally, let  $C$  be the event that the sum of the two dice is 7. Are  $A$ ,  $B$ , and  $C$  mutually independent? Are  $A$ ,  $B$ , and  $C$  pairwise independent?

□