

I pledge my honor that I have neither given nor received aid on this exam.

\_\_\_\_\_  
NAME

\_\_\_\_\_  
Z NUMBER

Show all work (attach work pages). Write on one side of page only. Write answers in space provided. Staple in upper left-hand corner.

Consider three identical-looking coins. Two of the coins are ordinary fair coins (H and T are equally likely to occur on any toss), but the third coin is 2-headed (both sides of the coin show H). Fran and Ron each chooses a coin at random, and the remaining coin is discarded. Suppose that Fran tosses her coin twice and Ron tosses his coin twice.

1. Find the probability that Fran gets H on her first toss. 1  
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2. Find the probability that Fran gets H on her second toss. 2  
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3. Find the probability that Fran gets HH on her two tosses. 3  
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4. Find the probability that Fran gets H on her third toss if she got HH on her first two tosses. 4  
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5. Find the probability that Fran is using the 2-headed coin if Ron got TT on his two tosses. 5  
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6. Find the probability that Fran gets HH on her two tosses if Ron got TT on his two tosses. 6  
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