$\qquad$
$\qquad$ Period $\qquad$

1. How many elements are in the sample space when you flip a coin and spin a spinner with 5 sections (A-E)?

List the sample space.
2. Find $P$ (picking a card that is not a face card) meaning not a Jack, King, or Queen. $\qquad$
3. Find $P$ (picking card that is a multiple of 4) $\qquad$
4. Find P (picking an Ace) $\qquad$
5. Three students Katherine (K), Michael (M), and Dana (D) want to go to a concert but there are only 2 tickets available. Two of the three students are selected at random.
a. What is the sample space of who attends the concert? $\qquad$
b. What is the probability that Katherine attends the concert? $\qquad$
6. You play a game where one player gets a point if the difference between two dice is 0,1 , or 2 . The other player gets a point if the difference between the two dice is 3,4 , or 5 .
a. Is this a fair game? Explain using probability. (Make a table to see the sample space.)
b. If the game is not fair, how can you change it to make it fair? $\qquad$
7. When playing a game, Player A wins if the sum of two dice is $2,4,5,9,10$, or 12 . Player $B$ wins if the sum if $3,6,7,8$, or 11 .
a. Is this a fair game? Explain using probability. (Use your dice table in your notebook or draw a table.)
b. If the game is not fair, how can you change it to make it fair? $\qquad$

