Name_____

Sample Spaces and The Counting Principle

Date_____ Period____

Represent the sample space using set notation.

1) A sandwich shop has three types of sandwiches: ham, turkey, and chicken.

2) The chess club must decide when to meet for a practice. The possible days are Tuesday, Wednesday, or Thursday.

3) The chess club must decide when to meet for a practice. The possible days are Tuesday, Wednesday, or Thursday. The possible times are 3, 4, or 5 p.m.

4) When a button is pressed, a computer program outputs a random odd number greater than 1 and less than 9. You press the button twice.

5) A spinner can land on either red or blue. You spin and then roll a six-sided die.

6) There are two boys and a girl on a trivia team. Two questions remain. One team member is randomly picked to answer the first question and a different member is picked to answer the second question.

Find the number of possible outcomes in the sample space.

7) A jewelry store sells gold and platinum rings. Each ring is fitted with a ruby, sapphire, emerald, or diamond gemstone.

8) A spinner can land on either red, blue, or green. You spin twice.

9) Eight rooms in a house need to be painted. Each room can be painted white or yellow.

10) Six books need to be placed on a shelf. You randomly arrange the books on the shelf from left to right.

Name_____

Sample Spaces and The Counting Principle

Date_____ Period_____

Represent the sample space using set notation.

1) A sandwich shop has three types of sandwiches: ham, turkey, and chicken.

   {ham, turkey, chicken}

2) The chess club must decide when to meet for a practice. The possible days are Tuesday, Wednesday, or Thursday.

   {Tuesday, Wednesday, Thursday}

3) The chess club must decide when to meet for a practice. The possible days are Tuesday, Wednesday, or Thursday. The possible times are 3, 4, or 5 p.m.

   {(T, 3), (T, 4), (T, 5),
   (W, 3), (W, 4), (W, 5),
   (R, 3), (R, 4), (R, 5)}

4) When a button is pressed, a computer program outputs a random odd number greater than 1 and less than 9. You press the button twice.

   {(3, 3), (3, 5), (3, 7),
   (5, 3), (5, 5), (5, 7),
   (7, 3), (7, 5), (7, 7)}

5) A spinner can land on either red or blue. You spin and then roll a six-sided die.

   {(R, 1), (R, 2), (R, 3), (R, 4), (R, 5), (R, 6),
   (B, 1), (B, 2), (B, 3), (B, 4), (B, 5), (B, 6)}

6) There are two boys and a girl on a trivia team. Two questions remain. One team member is randomly picked to answer the first question and a different member is picked to answer the second question.

   {(B_1, B_2), (B_1, G),
   (B_2, B_1), (B_2, G),
   (G, B_1), (G, B_2)}

Find the number of possible outcomes in the sample space.

7) A jewelry store sells gold and platinum rings. Each ring is fitted with a ruby, sapphire, emerald, or diamond gemstone.

   8

8) A spinner can land on either red, blue, or green. You spin twice.

   9

9) Eight rooms in a house need to be painted. Each room can be painted white or yellow.

   256

10) Six books need to be placed on a shelf. You randomly arrange the books on the shelf from left to right.

   720