

Name: _____

- 1 Samuel is buying a new car. He wants either a convertible or a hatchback. Both types of cars are available in red, white, or blue and with automatic or standard transmission. Draw a tree diagram or list a sample space of all possible choices of cars that are available.
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- 2 If Laquisha can enter school by any one of three doors and the school has two staircases to the second floor, in how many different ways can Laquisha reach a room on the second floor? Justify your answer by drawing a tree diagram or listing a sample space.
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- 3 Kimberly has three pair of pants: one black, one red, and one tan. She also has four shirts: one pink, one white, one yellow, and one green.
010731a Draw a tree diagram or list the sample space showing all possible outfits that she could wear, if an outfit consists of one pair of pants and one shirt. How many different outfits can Kimberly wear?
- 4 A restaurant sells kids' meals consisting of one main course, one side dish, and one drink, as shown in the table below.
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Kids' Meal Choices

Main Course	Side Dish	Drink
hamburger	French fries	milk
chicken nuggets	applesauce	juice
turkey sandwich		soda

- Draw a tree diagram or list the sample space showing all possible kids' meals. How many different kids' meals can a person order? Jose does not drink juice. Determine the number of different kids' meals that do not include juice. Jose's sister will eat only chicken nuggets for her main course. Determine the number of different kids' meals that include chicken nuggets.
- 5 Clayton has three fair coins. Find the probability that he gets two tails and one head when he flips the three coins.
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- The Grimaldis have three children born in different years.
- Draw a tree diagram or list a sample space to show all the possible arrangements of boy and girl children in the Grimaldi family.
 - Using your information from part a, what is the probability that the Grimaldis have three boys?