

Name: _____ Date: _____

Travel Time

A travel agent plans trips for tourists from Chicago to Miami. He gives them three ways to get from town to town: airplane, bus, train. Once the tourists arrive, there are two ways to get to the hotel: hotel van or taxi. The cost of each type of transportation is given in the table below.

Transportation Type	Cost
Airplane	\$350
Bus	\$150
Train	\$225
Hotel Van	\$60
Taxi	\$40

1. Draw a tree diagram to illustrate the possible choices for the tourists. Determine the cost for each outcome.

- If these six outcomes are chosen equally by tourists, what is the probability that a randomly selected tourist travel in a bus?
- What is the probability that a person's trip cost less than \$300?
- What is the probability that a person's trip costs more than \$350?
- If the tourists were flying to New York, the subway would be a third way to get to the hotel. How would this change the number of outcomes? Use the Fundamental Counting Principle to explain your answer.

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"Happy Birthday to You"

Andy has asked his girlfriend to make all the decisions for their date on her birthday. She will pick a restaurant and an activity for the date. Andy will choose a gift for her. The local restaurants include Mexican, Chinese, Seafood, and Italian. The activities she can choose from are Putt-Putt, bowling, and movies. Andy will buy her either candy or flowers.

- How many outcomes are there for these three decisions? _____
- Draw a tree diagram to illustrate the choices.

Dinner for Two	Activity Cost for Two	Gift Cost
Mexican - \$20	Putt-Putt - \$14	Flowers - \$25
Chinese - \$25	Bowling - \$10	Candy - \$7
Italian - \$15	Movies - \$20	

- If all the possible outcomes are equally likely, what is the probability that the date will cost at least \$50?
- What is the maximum cost for the date?
- What is the minimum cost for the date?
- To the nearest dollar, what is the average cost for this date?
- What is the probability that the date costs exactly \$60?
- What is the probability that the date costs under \$40?

