

Name: _____

Date: _____

Compound Probabilities

Instructions:

As a class, fill out the following 2-way frequency table about ice cream preferences. Then, answer the questions below.

| | | Preferred Ice Cream Flavor | | | TOTAL |
|--------------------|-------|----------------------------|-----------|------------|-------|
| | | Vanilla | Chocolate | Rocky Road | |
| Sports Involvement | Yes | | | | |
| | No | | | | |
| | TOTAL | | | | |

- Show your work for each part of this question. What is the probability of randomly selecting:
 - A student involved in sports?
 - A student who is not involved in sports and prefers rocky road?
 - A student who is involved in sports and likes vanilla or a student who is not involved in sports and prefers chocolate?
- For each part of this question, choose which scenario will have a higher probability. Support your decision by including calculations.
 - A student that prefers vanilla, chocolate or rocky road?
 - A student not involved in sports that prefers vanilla or a student involved in sports that prefers rocky road?
 - A student not involved in sports that prefers chocolate or a student not involved in sports that prefers rocky road?