

Mth 140: Group Activity Probability; Tuesday Oct 8th

- Work in groups of 2 or 3 to complete the following exercises.

Practice 1: A card is selected at random from a standard deck.

1. Find the probability of selecting a club **or** a 3.
2. Find the probability of selecting a face card **or** a heart.
3. Find the probability of selecting a 7 **or** a high card.

Standard deck			
2♥	2♦	2♣	2♠
3♥	3♦	3♣	3♠
4♥	4♦	4♣	4♠
5♥	5♦	5♣	5♠
6♥	6♦	6♣	6♠
7♥	7♦	7♣	7♠
8♥	8♦	8♣	8♠
9♥	9♦	9♣	9♠
10♥	10♦	10♣	10♠
J♥	J♦	J♣	J♠
Q♥	Q♦	Q♣	Q♠
K♥	K♦	K♣	K♠
A♥	A♦	A♣	A♠

3. Are any of the above events mutually exclusive? If so, which ones?

Practice 2: Consider the following table.

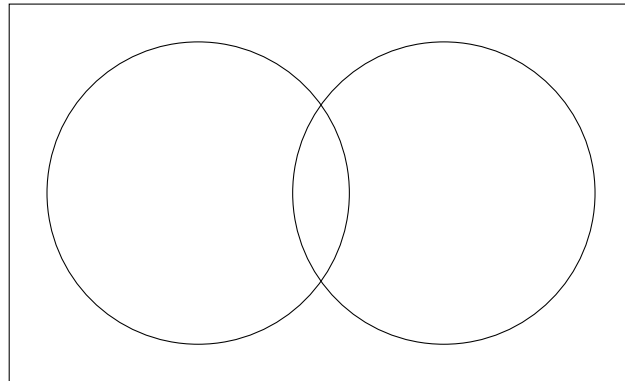
Boaters	The Coastline	Freshwater Lakes	Rivers and Streams	Total
Canoer	18	16		45
Kayakers			14	55
Total		41		

1. Complete the table.
2. Let A = event “canoers” and C = event “Prefers the coastline”. Are A and C independent?

3. Find the probability of selecting a kayaker **given** that the person prefers freshwater lakes.
4. Find the probability of selecting a "canoer" **or** a person who "prefers rivers and streams".

Practice 3: Of all US adults between age 18 and 64 it was reported that 73% use email, 62% use text message, and 14% use neither.

1. For a randomly selected US adult what is the probability that the person: (Use a Venn Diagram)



- (a) uses messaging or email?
 - (b) uses both?
 - (c) uses messaging or email, but not both?
2. If you randomly select 3 adults, what is the probability that all 3 use text messaging?
3. If you randomly select 3 adults, what is the probability that **some** use text messaging?