

# Nov. 10 Worksheet

1. Make a frequency distribution table from the following data.

The data set of 25 test scores is:

55, 78, 81, 62, 95, 88, 70, 65, 59, 72, 85, 90, 75, 68, 51, 83, 79, 73, 67, 92, 58, 86, 74, 60, 99

Test Score Intervals	Frequency	Relative Frequency

2. What sign do we use for the union of A and B?

3. What sign do we use for the intersection of A and B?

4. How do we write the compliment of A?

5. What is the formula for finding the probability of A and B occurring (union)? What if they are mutually exclusive?

6. In a standard deck of 52 playing cards, a single card is drawn. Find the probability of drawing a **King** or a **Red card**.

7. A survey of 1,200 people in the city of Riverwood was conducted about their coffee preferences.

- 700 people had tried a Latte.
- 550 people had tried a Cappuccino.
- 300 people had tried both a Latte and a Cappuccino.

If a person from Riverwood is chosen at random, what is the (empirical) probability that they have tried one of the coffee types but not both?

8. A carnival game costs \$2 to play. The table below shows the possible payouts (X) and their associated probabilities (P(X)).

Payout (X)	\$10	\$5	\$0
Probability (P(X))	\$0.10	\$0.30	\$0.60

What is the expected net gain or loss for a player of this game?

9. Which of the following two tables is an acceptable probability distribution?

A probability distribution must meet two conditions:

<b>X</b>	<b>10</b>	<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>
P(x)	0.20	0.35	0.15	0.30	0.05

<b>X</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
P(x)	0.15	0.10	0.45	0.35	-0.05

10. Find the missing probability value to complete the following distribution.

<b>X</b>	<b>1</b>	<b>5</b>	<b>9</b>	<b>13</b>	<b>17</b>
P(x)	0.08	0.22		0.15	0.30