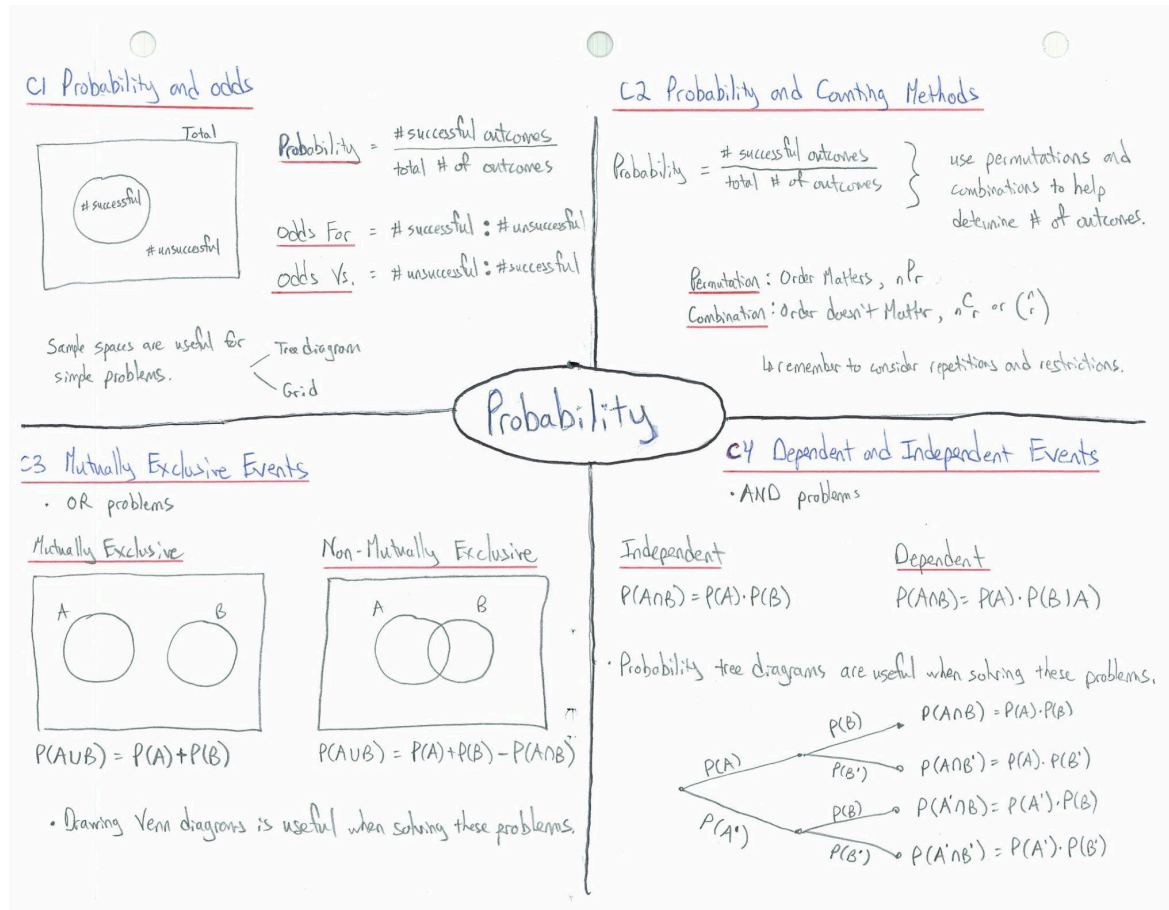


Probability - Engaging Resources

P SO1,2,3 - Probability Concept Summary Sheet

(Download: [Probability Concept Map.pdf](#))

This chart may help students see the big picture and the connections within the topic.

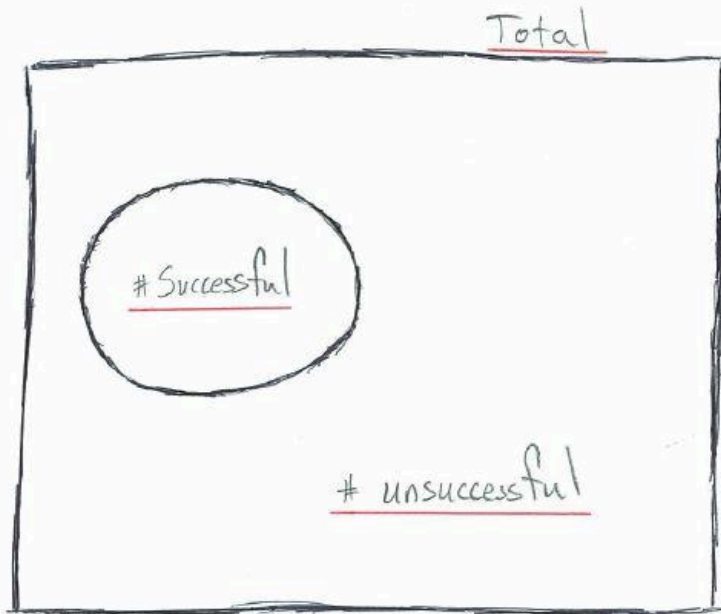


P SO1 - Probability & Odds Venn Diagram

(Download: [Probability&OddsVenn.pdf](#))

Students may benefit from the diagram below. Set theory is used to make a connection between probability & odds. Placing information from a problem into the diagram helps students avoid errors.

Probability and Odds



$$\text{Probability} = \frac{\# \text{ Successful Outcomes}}{\text{Total \# of Outcomes}}$$

(part : whole)

$$\text{Odds For} = \# \text{ Successful} : \# \text{ Unsuccessful}$$

$$\text{Odds Vs.} = \# \text{ Unsuccessful} : \# \text{ Successful}$$

(part : part)

P SO1,3 - Probability Misconceptions

(Download: [Probability Project.pdf](#))

One of the activities from the Probability Project involves students recognizing common misconceptions related to probability. While students reason out why a statement is a misconception they strengthen their understanding of probability and independent events.

ACTIVITY 10.1.2

Misconceptions

<p>1.</p> <p>I've spun an <i>unbiased</i> coin 3 times and got 3 heads. It is more likely to be tails than heads if I spin it again.</p>	<p>2.</p> <p>Aytown Rovers play Betown United. Aytown can win, lose or draw, so the probability that Aytown will win is $\frac{1}{3}$.</p>
<p>3.</p> <p>There are 3 red beads and 5 blue beads in a bag. I pick a bead at random. The probability that it is red is $\frac{3}{5}$.</p>	<p>4.</p> <p>I roll two dice and add the results. The probability of getting a total of 6 is $\frac{1}{12}$ because there are 12 different possibilities and 6 is one of them.</p>
<p>5.</p> <p>It is harder to throw a six than a three with a die.</p>	<p>6.</p> <p>Tomorrow it will either rain or not rain, so the probability that it will rain is 0.5.</p>
<p>7.</p> <p>Mr Brown has to have a major operation. 90% of the people who have this operation make a complete recovery. There is a 90%</p>	<p>8.</p> <p>If six fair dice are thrown at the same time, I am less likely to get 1, 1, 1, 1, 1, 1 than 1, 2, 3, 4, 5, 6.</p>