7.SP Rolling Dice

Task

Roll two dice 10 times. After each roll, note whether any sixes were observed and record your results in the table below.

<table>
<thead>
<tr>
<th>Roll</th>
<th>Any Sixes? (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>2</td>
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<td>9</td>
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<tr>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

a. What fraction of the 10 rolls resulted in at least one six?

b. Combine your results with those of your classmates. What fraction of all the rolls in
the class resulted in at least one six?

c. Make a list of all the different possible outcomes that might be observed when two dice are rolled. (Hint: There are 36 different possible outcomes.)

d. What fraction of the 36 possible outcomes result in at least one six?

e. Suppose you and your classmates were able to roll the two dice many thousands of times. What fraction of the time would you expect to roll at least one six?