Seaborn Histograms of Random Values
The purpose of this assignment is to give you (and your lab partner) practice generating random values and graphing them with Seaborn histograms.

Use the `random`, `numpy`, and `seaborn` packages to create three histograms of:

- uniformly distributed random integer values
- normally distributed random integer values
- exponentially distributed random integer values

Create a Jupyter notebook containing the histograms. Some online documentation:

- Random number generation: [https://docs.python.org/3/library/random.html](https://docs.python.org/3/library/random.html)
- Seaborn tutorial: [http://seaborn.pydata.org/tutorial](http://seaborn.pydata.org/tutorial)

Generate about 1000 integer values for each distribution. Generate the uniformly distributed random values in the range 0 – 25 inclusive.

For the normally distributed random values, make the mean 12.5, which was the mean of the uniformly distributed random values. Experiment with the $\sigma$ (sigma, the standard deviation) argument to generate values that fall mostly in the 0 – 25 range. You can use `if` statements to ignore values outside of this range.

For the exponentially distributed random values, use the same mean to compute the $\lambda$ (lambda) argument.

The more random values you use for each histogram, the smoother the tops of the bar charts will be. Try ten thousand values, or even a million. Would the charts be smoother if you increased the range, such as 0 – 100? Can you also draw smooth line graphs of the frequencies?
What to submit to Canvas
Submit your notebook into Canvas: Assignment #2: Seaborn Histograms of Random Values.

Rubric
Your notebooks will be graded according to these criteria:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Max points</th>
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<tbody>
<tr>
<td><strong>Three Jupyter notebooks:</strong></td>
<td>100</td>
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<tr>
<td>• Correct calls to functions from the random package.</td>
<td>30</td>
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<tr>
<td>• All three random distributions using the same mean.</td>
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<tr>
<td>• Correct calls to Seaborn functions to generate the charts.</td>
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<td>• Overall well-designed charts with titles and labels.</td>
<td>10</td>
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