

Problem 1

During a one-day blood drive 300 people donated blood at a mobile donation center. The blood types of these 300 donors are summarized below.

Blood Type Sample	
Blood Type	Frequency
O	136
A	120
B	32
AB	12

1. Create the relative frequency bar graph using R using the `prop.table()` method on the given frequencies. Please label the axes and title your graph. Copy and paste the code you entered in RStudio and include the resulting graph into your MS Word document.
2. Run the `prop.table()` command method on the given frequencies to find the percentage of each blood type is in the sample. Round each percentage to the nearest one decimal place.

Problem 2

Consider the following random sample of battery life-times measured in hours.

4285, 2066, 2584, 1009, 318, 1429, 981, 1402, 1137, 414, 564, 1278, 205, 3920, 604, 14, 4152, 209, 349, 478, 602, 3770, 726, 1379, 99, 510, 737, 852, 3032, 1461, 3894, 2662, 582, 308, 1560, 1786, 520, 396, 701, 1406, 261, 83, 497, 35, 2778, 1379, 3367, 99, 373, 454

Use R to create the histogram for this data. Please use the appropriate labels and titles in your graph. Copy and paste the code you entered in RStudio include the resulting graph into your MS Word document. Allow R to decide the breaks.

Problem 3

Using the work done in Problem 2, use the classes created by R to make a table containing the

1. Frequencies for each class; and
2. The cumulative frequencies

Problem 4

Using the work done in Problem 2, use R to create the density histogram with the density curve on top of the density histogram. Copy and paste the code you entered in RStudio and include the resulting graph into your MS Word document.

Problem 5

Use the graph from Problem 4 to determine if the graph is bell-shaped, skewed-left, or skewed-right. Provide an explanation of your answer.