

Laboratory Activity 3 for Math 080: Topics from Chapter 1

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1 Introduction

Please watch the video entitled “Two-dimensional histograms” on Moodle, and repeat the calculation shown there, according to the parameters below. Perform your calculation in Excel or Calc. **The goal is to fill in the table below, using your results.**

2 Questions

1. Calculate the relative frequencies of the numbers of classes as done in the video.
2. Remove the final *overflow* column, as done in the video.
3. Create a 2D histogram from the relative frequencies that contains 5 rows and 3 columns. This is equivalent to filling in the following table:

(year and size)	0-19	20-39	40-99
2010-2011	0.55934517	0.408104975	0.027833095
2012-2013	0.567738881	0.402184412	0.026298179
2014-2015	0.563344755	0.407421949	0.025580621
2016-2017	0.605130012	0.36900309	0.023409407
2018-2019	0.542367788	0.436245051	0.021387161

4. Do you identify any trends? If so, what are they? (Base your arguments on the histogram you’ve constructed from the original data).–

the relative frequencies for >40 classes over the last ten years remain stable. There was a slight increase in the relative frequency of <19 classes and a slight decrease in that of 20-39 classes in years 2016-2017 overall the ratio between each of every interval looks pretty stable and consistent.