11.1 IB Math - Unit 8 Descriptive Statistics

Bronx Early College Academy

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8.1 Introduction and definitions Monday 6 May

8.2 Deltamath summary statistics, Tuesday 6 May

8.3 Central tendency Wednesday 8 May

8.4 Central tendency Thursday 9 May

8.5 Standard deviation Monday 13 May

8.6 Standard deviation Tuesday 14 May

8.7 Cumulative distributions Wednesday 15 May

8.8 Cumulative distributions Thursday 16 May

GQ: How do we determine the features of a population?

HSS.ID.A.1-4 Summarize, represent, and interpret data on a single measurement variable

8.1 Monday 6 May

Do Now: Skills Check p. 254

Lesson: Qualitative & quantitative data, graphing, definitions p.255-9

Homework: Exercises 8B p. 259

GQ: How do we determine the features of a population?

CCSS: HSS.ID.A.1-4 Summarize, represent, and interpret data on a single measurement variable

8.2 Tuesday 7 May

Deltamath probability practice

Homework: Complete Deltamath exercises

GQ: How do we determine the "center" of a population?

HSS.ID.A.1-4 Summarize, represent, and interpret data on a single measurement variable

8.3 Wednesday 8 May

Do Now: Sequences review

1. An arithmetic sequence begins $4, k, 10, \ldots$. Find k.
2. Find the value of the 8th term of the sequence.
3. The sum of the first n terms in the sequence is 589. Find n.

Lesson: Measures of central tendency: mean, median, & mode p. 260-7
Using class interval midpoints for frequency table calculations.

Homework: Exercises 8C, 8D, 8E. Select an appropriate number of problems.

GQ: How do we determine the "spread" of a population?

HSS.ID.A.1-4 Summarize, represent, and interpret data on a single measurement variable

8.4 Thursday 9 May

Do Now: Enter the frequency table data shown in a calculator. Answer the questions both with the calculator and by hand.

Value	0	1	2	3	4
Freq.	2	6	4	2	1

1. How many data are there ($n =$?)? List them.
2. Write down the mode. Find the median and mean.
3. Sketch a histogram to represent the data.

Lesson: 8.4 Measures of dispersion: max, min, range, quartiles, IQR, & 5-figure summary p. 267-271
Using class interval midpoints for frequency table calculations.
Cumulative distributions p. 271-2

Homework: Exercises 8F, 270-1 (8G).

GQ: How do we quantify the dispersion of a population?

HSS.ID.A.1-4 Summarize, represent, and interpret data on a single measurement variable

8.5 Monday 13 May

Do Now: The frequency table represents the scores of an IB class out of a 90-point exam.

Score	$10 \leq x < 30$	$30 \leq x < 50$	$50 \leq x < 70$	$70 \leq x < 90$
Freq.	4	6	3	2

1. How many students are there?
2. Write down the modal class.
3. Estimate the median, quartiles, and the mean.
4. Sketch a histogram to represent the data.

Cumulative distributions, #6 p. 275

Lesson: 8.6 Standard deviation p. 276-281

Homework: Exercises 8H, 279-280.

GQ: How do we "rangle" a dataset?

HSS.ID.A.1-4 Summarize, represent, and interpret data on a single measurement variable

8.6 Tuesday 14 May

Do Now: If you had access to the passenger roster of the Titanic, what interesting questions would you explore?

1. Write down a question regarding the types of passengers on the Titanic's maiden voyage.
2. Write a question regarding who survived versus died.
3. Suggest calculations that answer the questions.
4. What types of graphs might you make?

Cumulative distributions, #6 p. 275
Lesson: Working with datasets using modern technology

Homework: Review exercises 281-284.

GQ: How do we understand a dataset as a cumulative distribution?

HSS.ID.A.1-4 Summarize, represent, and interpret data on a single measurement variable

8.7 Wednesday 15 May

Do Now Quiz

1. Sequences review
2. 5-figure summary
3. Cumulative distributions

Lesson: Cumulative distributions, #6 p. 275
Effect on statistical measures of scaling data values

Homework: Pretest problem set

GQ: How do we use a cumulative distribution graph?

HSS.ID.A.1-4 Summarize, represent, and interpret data on a single measurement variable

8.8 Thursday 16 May

Do Now: Handout

1. Mean & standard deviation, scaling
2. Interpreting a cumulative frequency graph
3. Spicy sequence problems

Review pretest problems
Lesson: Interpreting cumulative distribution graphs, #6 p. 275
Homework: Pretest problem set