11.1 IB Math - Unit 8 Descriptive Statistics

Bronx Early College Academy

Christopher J. Huson PhD

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BECA / Dr. Huson / 11.1 IB Math - Unit 8 Descriptive Statistics

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

9.1 Bivariate analysis Monday 20 May

9.2 Line of best fit, using Desmos Tuesday 21 May

9.3 Review logs, exponential functions, sequences for exam Wednesday 22 May

9.4 Statistics exam (sequences & logs review) Thursday 23 May

10.1 Scale & applications of dilation Tuesday 28 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

GQ: How do we compare two variables?

HSS.ID.A.1-4 Summarize, represent, and interpret data of two measurement variables 9.1

Monday 20 May

Do Now: Handout

1. Plotting two variables
2. Calculator use for two sets of data
3. Quiz corrections

Review homework problems

Lesson: Interpreting cumulative distribution graphs, #6 p. 333-338

Homework: Textbook exercise 10A pp. 337-9 (use a calculator for #4,5 instead of graphing by hand)

GQ: How do we compare two variables?

HSS.ID.A.1-4 Summarize, represent, and interpret data of two measurement variables 9.2
Tuesday 21 May

Do Now Handout: Interpreting scatter plot data

1. Plotting two variables
2. Calculating the line of best fit's slope and y-intercept
3. Interpreting the parameters

Introduction to Canvas: Word formatting practice
Lesson: Using Desmos, 10B&C p. 341, 343

Homework: Textbook exercise 10D pp. 344 (test Thursday)

GQ: How do we compare two variables?

HSS.ID.A.1-4 Summarize, represent, and interpret data of two measurement variables 9.3
Wednesday 22 May

Do Now Handout: Interpreting cumulative distribution plots

1. Interpreting the parameters

Interpreting cumulative distribution graphs, #6 p. 333-338
Lesson: Review logs, exponential functions, sequences for exam

Homework: Study for (test tomorrow)

GQ: How do we compare two variables?

HSS.ID.A.1-4 Summarize, represent, and interpret data of two measurement variables 9.4

Thursday 23 May

Assessment: Descriptive statistics exam

Homework: Weekend packet

GQ: How do we use scale factors?

CCSS: HSG.CO.D.12 Congruence, geometric constructions 10.1 Tuesday 28 May

Do Now: Handout

1. Using scale factors
2. Real world situations

Guest teacher, Mr. Segal. Applications of scale factors in finance.

Homework: Problem set, test corrections due Thursday