Mathematics Class Slides

Bronx Early College Academy

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12 November 2019

2.8 Revise Excel analysis summary page 25 Oct

2.10 Revise Excel analysis summary page 29 Oct

2.16 Cumulative distribution application, quiz 8 Nov

2a.0 Exploration project paper schedule

2a.1 Exploration paper student work time (1) 12 Nov

2a.2 Exploration paper student work time (2) 15 Nov

2a.3 Exploration paper student work time (3) 19 Nov

2a.4 Exploration paper student work time (4) 22 Nov

2a.5 Exploration project peer review feedback (5) 26 Nov

2a.5 Peer review submission criteria 25 Nov

GQ: How do we communicate statistical results?

CCSS: MP5 attend to precision 2.8 Friday 25 Oct

Mini Exploration: What is the best route to school?

1. Based on Excel model of commuter data (math.huson.com)
2. Complete statistical calculations and written analysis
3. Email the Excel file and a pdf version of spreadsheet & paper (three attachments)

Exploration paper scoring criterion: Personal Engagement (Oct24)
Homework: Complete your paper, Sunday 10:00PM deadline

GQ: How do we communicate statistical results?

CCSS: MP5 attend to precision 2.10 Tuesday 29 Oct

Mini Exploration: What is the best route to school?

1. Based on Excel model of commuter data (math.huson.com)
2. Complete written analysis
3. Email the Excel file and a pdf version of spreadsheet & paper (three attachments)

Peer review of draft of subway commute analysis (Oct 28)
Mind map / brainstorming an exploration topic p. 743 (Oct 30)
Homework: Complete your paper, today 10:00PM deadline
Homework: Exploration topic due Nov 4
Read example (subway platform delays) exploration paper

GQ: How do we display and interpret cumulative data?

CCSS: MP5 attend to precision Friday 8 Nov

2.16 Do Now Quiz: IB problems handout

1. Write down your exploration topic
2. Summarizing frequency table data
3. Interpreting box plots

Lesson: Comparing quantitative data in Excel, an exploration
Make your own analysis of subway platform crowding versus delays. (use the raw data file on math.huson.com)

Homework: Write up analysis. Email Excel, Word, & pdf files. Due 10:00 Sunday

GQ: How do we employ mathematics to explore a topic?

CCSS: MP5 attend to precision originally Thursday 31 Oct

Exploration: Schedule and deadlines

1. Topic selection - Monday November 4th
2. In class work sessions (you must work at home too)
   - 2.1 Independent work on introduction, data, mathematics - Nov 11
   - 2.2 Complete design of methods, collect data - Nov 15
   - 2.3 Apply mathematics, write up methods & results - Nov 19
   - 2.4 Finalize peer review paper, print - Nov 22
3. Complete paper for peer review - Friday November 22nd
4. Complete paper for grade - Friday December 6th
5. Final paper - Friday January 17th

GQ: How do we use mathematics to explore a topic?

CCSS: MP5 attend to precision 2a.1 Tuesday 12 Nov

Work on exploration papers

1. Inputs: what data will you use and how will you get it?
2. What mathematics will you apply (find the textbook chapter)
3. Outputs: What results will you use to answer your aim?
4. Start drafting and re-drafting your introduction (aim, rationale, personal engagement)

Scoring an exploration paper
Homework: Develop exploration
Homework (Nov13): Read and evaluate sample exploration paper according to criteria pp. 737-740

GQ: How do we use mathematics to explore a topic?

CCSS: MP5 attend to precision 2a.2 Friday 15 Nov

Work on exploration papers

1. Inputs: what data will you use and how will you get it?
2. What mathematics will you apply (find the textbook chapter)
3. Outputs: What results will you use to answer your aim?
4. Start drafting and re-drafting your introduction (aim, rationale, personal engagement)

Homework: Develop exploration

GQ: How do we use mathematics to explore a topic?

CCSS: MP5 attend to precision 2a.3 Tuesday 19 Nov

Work on exploration papers - quiet, independent work

1. Organize your inputs or data. Do not worry about formatting it yet.
2. Apply mathematics, probably with technology. Use pencil & paper for equations for now (reference the textbook)
3. Study your initial results. Write down what you find! Brainstorm, outline, type up descriptions, findings, reflections. Tie back to your aim.
4. Re-write your introduction (aim, rationale, personal engagement). Draft the conclusion (perhaps rough).

Homework: Develop exploration

GQ: How do we use mathematics to explore a topic?

CCSS: MP5 attend to precision 2a.4 Friday 22 Nov

Submit exploration papers for peer review - quiet, independent work

1. Organize and print your inputs or data. Formatting is not critical, but label it clearly (by hand is fine).
2. Check mathematics. Include spreadsheets in submission to peer. Pencil & paper for equations are fine, but organize and write clearly.
3. Explain the results clearly. Complete descriptions, findings, reflections. Tie back to your aim.
4. Lock down your introduction (aim, rationale, personal engagement) conclusion (which must tie back to aim).

Read peer paper, mark with comments, complete checklist (due Tuesday)

GQ: How do we give constructive feedback?

CCSS: MP5 attend to precision 2a.5 Tuesday 26 Nov

Discuss and incorporate peer review - quiet partner work

1. Organize and format. Consider digital versus handwritten alternatives. No cover page nor word count. Color pdf. MLA...MLA...MLA
2. Check mathematics. Organize spreadsheets. Comply with IB standards (3 sig figs, no calculator notation, proper terminology).
3. Explain the results clearly. Complete descriptions, findings, reflections. Tie back to your aim.
4. Rewrite your introduction (aim, rationale, personal engagement) and conclusion (which must tie back to aim).

Weekend homework is to revise your project papers. Graded submission due Friday 6 December

GQ: How do we evaluate a paper without reading it?

CCSS: MP5 attend to precision 2a.5 Tuesday 26 Nov

Scoring of project papers

1. Submission of partial paper / introduction (55 points)
2. Includes data, values, or figures (10 points)
3. Mathematics has been applied (10 points)
4. Conclusion (10 points)
5. Complete paper (5 points)
6. pdf format attached to email (5 points)
7. spreadsheet (data) included in email (5 points)

Standard late credit: 80% (declining per day)