Mathematics Class Slides
Bronx Early College Academy

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Extra help

framesubtitleI am available to help with math questions

- ▶ Ask for a lunch pass to get help or do homework (no socializing)
- ▶ Work on your papers using the computers and printer in Room 414
- ▶ I can sometimes stay after school but ask ahead of time

Technical writing
Write a short paper answering a specific question

1. Logical, step-by-step explanation, using an example
2. Precise terminology, succinct:
3. Notation: algebra symbols, tables, trees, grids
4. Summary, big-picture, conceptual idea
5. Audience: student peers

Steps for writing technical papers

Practice writing mathematics according to IB requirements, as per IA criteria.

Proposal

1. Define an "aim," including success criteria.
2. Outline paper, especially Method including data collection, graphs, formulas; list references
3. Draft introduction, including rationale and aim.
4. Structure data tables, sketch graphs, begin formula and algebra (all handwritten, perhaps spreadsheets or Desmos)
5. Draft Method section text

Method

1. Collect data (survey, search, simulation, etc.)
2. Work interactively with spreadsheets, graphing software, math
3. Refine Method section, draft results and discussion.

Complete mathematics and paper. Proofread carefully. Rewrite. Receive peer feedback. Rewrite. Submit final draft.

Standards for writing technical papers
Practice writing mathematics according to IB requirements, as per IA criteria.

Criterion C: Personal engagement (0-4 points)

1. Address a personal interest; "make it your own"
2. Think independently and/or creatively
3. Present mathematical ideas in your own way

Criterion D: Reflection (0-3 points)

1. Review, analyze, and evaluate the mathematics throughout the paper. Go beyond just describing results
2. Link to the aims, comment on what has been learned, consider limitations, and compare different mathematical approaches
3. Consider what's next, discuss the implications of results, strengths and weaknesses of approaches, and consider different perspectives

Communication protocols
How to send information and common conventions to follow

- ▶ Mail ("post"), by messenger: formal, fancy, legally secure
- ▶ Text (cell phone): brief, informal, immediate, transitory
- ▶ Email: versatile, threaded, transitory or permanent (insecure)
  Subject line, salutations, handle@domain
- ▶ Attachments: .pdf is universally readable, can't be edited
  Microsoft Word, Excel, .ppt can be edited, commented
- ▶ Link: extended collaboration, commercial paywalls
  If you are not paying for it, you're not the customer; you're the product being sold.