

Storybook

Adventures in Algebra

due Monday November 17th

Your task is to create an exciting, educational tale for children of age 8.

- Work: individually or groups of up to 3
- Due: pdf due before class Monday November 17th
- Material: Follow table of contents provided (page 2)

Determine which ideas are important and how best to present them.

Grading

The assignment will count as ~~2-quiz-grades~~ test grade (20%).

Three criteria per chapter:

Complete addresses all topics thoroughly

Clear can an 8-year-old follow your explanation?

Engaging would an 8-year-old be excited to read your book?

Examples are a useful way to make a concept clear.

Pictures, diagrams, good writing can make a book engaging.

Presentation (optional)

up to +2 points to final grade

(depending on the quality of your presentation)

Table of Contents

I. Counting: Tools for the Journey

Topics

+, x, division by zero, parenthesis, exponents
associativity, commutativity, distribution

II. Lines: Two Dots Make a Line

Topics

slope, y-intercept, parallel, equations with lines
graphs, shifting lines up and down

III. Functions: The Function Machine

Topics

domain, possible outputs, transformations (up down and all around)
graphing x^{100} and x^{99} , even and odd, machines in one another ($f(g(x))$)

IV. x^2 : New Pal Parabola

Topics

Graph, shift, zero product property, min, max,
understand any parabola: complete the square

V. $\frac{x^3+2x}{x^8}$: The Big Leagues

Topics

your choice

it may help to include tempting mistakes or exercises