

ADL Algebra

$$\int \frac{x+5}{x^2-2x-3} dx$$

$$\frac{5}{3} dx = \int \frac{2}{x-3} dx - \int \frac{1}{x+1}$$

$$= 2 \ln(x-3) - \ln(x+1)$$

$$= \ln \frac{(x-3)^2}{x+1} + C$$

ADL Mathematics Program

Our overall goal is to increase access to the algebra program for ADL students.

- 8th Grade Connected Math Program (CMP) already integrates all but a handful of Algebra I concepts taught at EHS
- Students going into geometry without having 8th grade CMP lack a solid foundation in the basic geometry skills the CMP addresses

So...How Will it Work?

- All 8th graders will be assigned to a CMP class
- Students who opt to take the algebra component will sign a contract outlining the requirements



- Algebra students will attend a weekly seminar on Fridays during homeroom and activity period.
- Both in class and independent work will be required.
- Students can access 8th grade math teachers for support before and after school by appointment.
- An online web class that includes homework, practice work, tutorials, online quizzes, the calendar and syllabus will be available to all algebra students.

Algebra Requirements

Students who earn high school placement credit will:

- Attend all seminars
- Complete all seminar assignments
- Earn at least a B on the high school midterm and final exams
- Maintain at least a B in both CMP8 and Algebra Seminar
- Complete the highest level of class work and assignments in CMP8

Of the eighth grade power indicators (things that NEED to be learned) the highlighted are NOT formally taught nor assessed in the Algebra 1A curriculum. Therefore, students who skip the 8th grade curriculum may have gaps when they reach higher levels of mathematics and/or the high school NECAP exam.

Eighth Grade

CCSU MATH POWER STANDARDS AND POWER INDICATORS

Power Standard #1: Students understand value and apply properties and operations of numbers.

Power Indicators:

- a) Demonstrate understanding of percent of change (percent increase and decrease)
- b) Compare common irrational numbers

Power Standard #2: Students know and apply the attributes of geometric figures.

Power Indicators:

- a) Apply Pythagorean Theorem to find the length of a side of a right triangle
- b) Apply properties of similarity: scale factor's effect on volume and surface area.
- c) Apply proportional reasoning to find side lengths in similar triangles
- d) Find volume and surface area of pyramids

Power Standard #3: Students know and use units of measure

Power Indicators:

a) Convert units across systems given conversion factors and formulas

Power Standard #4: Students identify and extend patterns to express relationships between and among variables, and solve equations and inequalities.

Power Indicators:

a) Generalize a non-linear relationship to find a specific case ($y=x^2$, solve for y when $x=7$)

b) Find and interpret slope and y -intercept from a table, graph, and equation ($y=mx+b$)

c) Evaluate expressions using order of operations consistent with this grade level

d) Use the distributive property to compare two expressions

e) Solve formulas for a variable requiring one transformation

Power Standard #5: Students represent, interpret, and predict using data.

Power Indicators:

a) Interpret and create Box and Whisker plots including five number summaries

b) Estimate the line of best fit on scatter plots to analyze the relationship between the variables

Power Standard #6: Students find probability theoretically and experimentally.

Power Indicators:

a) Find permutations

b) Calculate probability with or without equally likely outcomes