

# Mathematics Class Slides

Bronx Early College Academy

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5-21 September 2019

1.1 First day of Geometry, 5 Sept

1.2 Drawing and construction tools, 6 Sept

1.3 Equilateral triangle construction, 9 Sept

1.4 Segment addition postulate, 10 Sept

1.5 Angle terminology, quiz review, 11 Sept

1.6 Angle terminology, quiz review, 12 Sept

1.7 Exam: Algebra, triangle construction, measurement, 13 Sept

## GQ: How do we define the basic elements of geometry?

CCSS: HSG.CO.A.1 Know precise geometric definitions

1.1 Thursday 5 Sept

Welcome back to school

### Do Now: Algebra skills check

1. Assigned seating
2. Take out notebooks (or blank paper) & calculator (or \$20)
3. Complete Do Now handout

Supply list: Notebook, folder, looseleaf, pencils & pens, compass and ruler, calculator (due Monday)

Lesson: Measurement, drawing, geometric calculations

Homework: Algebra skills practice

## GQ: How do we construct geometric figures?

CCSS: HSG.CO.D.12 Congruence, Make geometric constructions

1.2 Friday 6 Sept

Do Now: Copy definitions into notebook

Lesson: Definitions: point, line, plane, ray, segment, end point, colinear, coplanar, congruent, distance or length, angle, vertex

Homework review

Practice compass use: "flower of life"

Calculator deposits \$20

Homework: Problem set 1-2 Vocabulary and terminology

## GQ: How do we construct an equilateral triangle?

CCSS: HSG.CO.D.13 Construct an equilateral triangle

1.3 Monday 9 Sept

Do Now:  $x = 0$  vs  $y = 0$ . Copy into notebook, do problems

1.  $x = 0$ , starting point,  $y$ -intercept,  $b$ , initial condition,  $f(0)$
2.  $y = 0$ ,  $x$ -intercept, the solution, the zeros,  $f(x) = 0$

Lesson: Circle notation; "Sketch", "draw", "construct"; "Given"

Euclid's first construction

1. Steps in the construction
2. Logic: Why does it work?
3. MLA headings: First+Last Name / Dr. Huson  
10.x Geometry / 9 September 2019
4. Assessment criteria: precision, correct & complete, elegance

Homework: Measurement, terminology, and algebra practice

Due: Compass, ruler, protractor, calculator

## GQ: How do we measure distance?

CCSS: HSG.CO.D.12 Congruence, Make geometric constructions 1.4 Tuesday 10 Sept

### Do Now: Construct an equilateral triangle

1. Do the construction and list the steps
2. MLA headings: First+Last Name / Dr. Huson  
10.x Geometry / 10 September 2019
3. Project quality: these will be graded and posted!
4. Assessment criteria: complete & correct, aesthetics

Lesson: Area and perimeter formulas, opposite rays, intersection  
Segment addition postulate (classwork handout)  
(Midpoint, bisector)

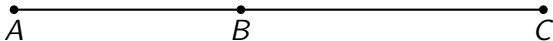
Homework: Distance algebra problems

## A step-by-step guide to solving geometry problems

Segment addition postulate

1.4 Tuesday 10 Sept

Given  $\overline{ABC}$ ,  $AB = 3x - 7$ ,  $BC = x + 5$ ,  $AC = 14$ . Find  $AB$ .

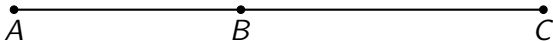


## A step-by-step guide to solving geometry problems

Segment addition postulate

1.4 Tuesday 10 Sept

Given  $\overline{ABC}$ ,  $AB = 3x - 7$ ,  $BC = x + 5$ ,  $AC = 14$ . Find  $AB$ .



1. Sketch and label the situation
2. Write a geometric equation
3. Substitute algebraic values
4. Solve for the unknown
5. Answer the question
6. Check your answer



## GQ: How do we measure angles?

CCSS: HSG.CO.A.1 Know precise geometric definitions

1.5 Wednesday 11 Sept

### Do Now: How big is a football field?

1. On lined scrap paper, calculate the area of a football field
2. 100 yards long,  $53\frac{1}{3}$  yards wide
3. What is the area of the end zone? (10 yards deep)
4. Spicy: What is the area in square feet?

### Do Now handout

1. Measuring angles
2. Protractor use
3. Making angles of a given measure

Angle terminology: legs, vertex, interior, exterior, right, acute, obtuse

Test Friday Homework: Study for test

## GQ: How do we measure angles?

CCSS: HSG.CO.A.1 Know precise geometric definitions

1.6 Thursday 12 Sept

### Do Now: How big is a football field?

1. On lined scrap paper, calculate the area of a football field
2. 100 yards long,  $53\frac{1}{3}$  yards wide
3. What is the area of the end zone? (10 yards deep)
4. Spicy: What is the area in square feet?

### Do Now handout

1. Measuring angles
2. Protractor use
3. Making angles of a given measure

Angle terminology: legs, vertex, interior, exterior, right, acute, obtuse

Review for **test tomorrow**

Homework: Study for test

## GQ: How do we get started with geometry?

CCSS: HSG.CO.A.1 Know precise geometric definitions

1.7 Friday 13 Sept

### Test: Introduction to geometry

1. Terminology and notation
2. Equilateral triangle construction
3. Measuring length and angles
4. Algebra review

Homework: Angle measure algebra problems