# 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, 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)

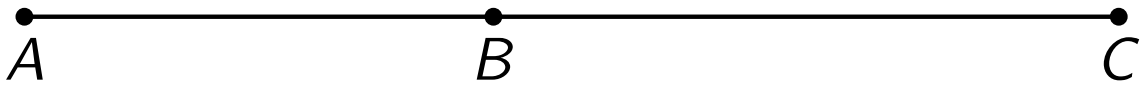
Homework: Distance algebra problems

# 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 $AB$.

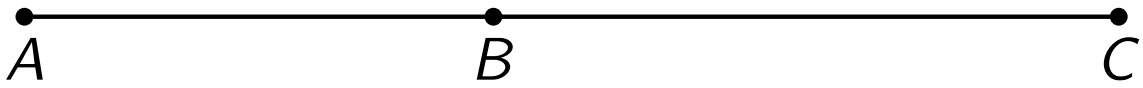


# A step-by-step guide to solving geometry problems

## 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?

Lesson: Measuring angles, making angles of a given measure
Angle terminology: legs, vertex, interior, exterior, right, acute, obtuse; adjacent, opposite or vertical angles

Homework: Pretest handout, Test Friday

# GQ: How do we measure angles?

CCSS: HSG.CO.A.1 Know precise geometric definitions 1.6 Thursday 12 Sept

## 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