Mathematics Class Slides

Bronx Early College Academy

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5-21 September 2019

BECA / Dr. Huson / Geometry Unit 1

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: Problems 75-80 pg 19

Homework review
Lesson: Definitions: point, line, plane, ray, segment, end point,
colinear, coplanar, congruent, distance or length, angle, vertex
Segment addition postulate (classwork handout)
Project: Introduction to compass use
Calculator deposits $20
Homework: Problem set 1-1 Vocabulary and terminology

GQ: How do we construct an equilateral triangle?

CCSS: HSG.CO.D.13 Construct an equilateral triangle   1.2 Friday 6 Sept

Do Now Quiz

1. Notation and terminology

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

Euclid's first construction

1. Steps in the construction
2. Logic: Why does it work?
3. Assessment criteria: precision, correct & complete, elegance or beauty

Lesson: Opposite rays, intersection, p. 13-15

Homework: Geometry and algebra practice

Due: notebook, folder, compass, ruler, protractor, calculator

GQ: How do we work in three dimensions?
CCSS: HSG.CO.A.1 Know precise geometric definitions   1.2 Friday 6 Sept

Do Now: I have a compass, notebook, and calculator

1. Tools checklist
2. Notation
3. Segment addition, absolute value
4. Equilateral triangle construction
   What is the actual measured length of *DE*? (in centimeters)

Plane geometry pp. 14-17
Problems #1-20 p.16
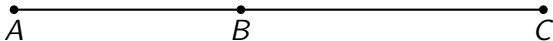
Homework: Pre-quiz geometry and algebra practice
Construction project due Friday (hexagon challenge)

A step-by-step guide to solving geometry problems

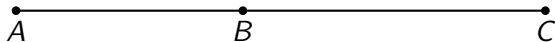Given $\overline{ABC}$, $AB = 3x - 7$, $BC = x + 5$, $AC = 14$. Find AB.

A step-by-step guide to solving geometry problems

Segment addition postulate   1.2 Friday 6 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 distance?

CCSS: HSG.CO.D.12 Congruence, Make geometric constructions   1.2 Friday 6 Sept

Do Now: I have a ruler and protractor

1. Plane geometry
2. Measure lengths

Midpoint, bisector, step-by-step solving distance algebra
Problems pp. 20-24, #1-5, 8-20

Homework: Distance algebra problems, challenge p. 26
Construction project due tomorrow (hexagon challenge)

GQ: How do we measure angles?
CCSS: HSG.CO.A.1 Know precise geometric definitions   1.2 Friday 6 Sept

Do Now quiz - Project due

1. Notation
2. Segment addition, absolute value
3. Equilateral triangle construction

Angle terminology, types; protractor use pp. 27-29
Problems #1-20 (odds) p.31

Homework: Angle notation

GQ: How do we add angle measures?

CCSS: HSG.CO.A.1 Know precise geometric definitions   1.2 Friday 6 Sept

Do Now: Practice and review

1. Segment addition problem
2. Equilateral triangle construction
3. Segment replication

Review common errors of Friday's Do Now Quiz
Angle addition postulate pp. 30-32
Classwork problems 7-23 odds pp. 31-32

Homework: Angle measure algebra problems
Parent-teacher meeting tomorrow 4:30-7:30 Participation credit!

GQ: How do we solve bisector problems?
CCSS: HSG.GPE.B.6 Find the midpoint of a segment   1.2 Friday 6 Sept

Do Now: Practice, construction

1. Use your protractor and ruler to measure and draw.
2. Use your compass and straightedge to construct an equilateral triangle.

Congruence situations versus addition situations
Angle bisectors

Homework: Pre-test
Parent-teacher meeting tomorrow 4:30-7:30 Participation credit!

GQ: How do we use the tools of geometry?

CCSS: HSG.CO.A.1 Know precise geometric definitions   1.2 Friday 6 Sept

Do Now: Angle measure practice, construction

1. Use your protractor, ruler, and compass

Test review

Homework: Study for test

GQ: How do we use the tools of geometry?

CCSS: HSG.CO.A.1 Know precise geometric definitions   1.2 Friday 6 Sept

Do Now: (Test)

Test

Homework: Angle measure algebra problems