Mathematics Class Slides

Bronx Early College Academy

Chris Huson

24 September 2018

2.1 Midpoint definition & calculations, 16 Sept

2.2 Laptops: Pupilpath & Geogebra equilateral triangle, 17 Sept

2.3 Triangle area formula, 18 Sept

2.4 Solving for a missing parameter, 19 Sept

2.5 Perimeter; Complementary & supplementary angles, 20 Sept

1b.3 Drui: Vertical angles. Wednesday Sept 26

1b.4 Drui: Construct perpendicular bisector. Thursday Sept 27

1b.5 Drui: Constuct angle bisector. Friday Sept 28

GQ: How do we bisect a line segment?

CCSS: HSG.CO.A.1 Know precise geometric definitions 2.1 Monday 16 Sept

Segment addition and measurement practice

1. Equilateral triangle construction
2. Measuring and calculating length
3. Segment addition situations

Lesson: Definitions: midpoint, bisect, trisect, perpendicular

Test corrections / analysis
Construction: Perpendicular bisector
Demonstration: Geogebra equilateral triangle

Homework: Problem set 2-1

GQ: How do we use computer technology?

CCSS: MP4 Use technology appropriately 2.2 Tuesday 17 Sept

Do Now: Boot up laptop, Pupilpath, geogebra.org > geometry

1. Always use the laptop with your number
2. Write down your Geometry grade (from Pupilpath) in your notebook
3. Log into your personal email
4. Open geogebra.org > geometry
5. Explore & play!

Lesson: Geogebra equilateral triangle construction
"Lids down" for group focus
Return laptops to proper slot number, charging cable

Homework: Parent Pupilpath checklist

GQ: How do we present mathematical work?

CCSS: HSG.CO.D.12 Congruence, Make geometric constructions 2.2 Monday 17 Sept

Criteria for construction projects

1. Complete and correct construction
2. MLA layout: First & last name / Dr. Huson / 10.x Geometry / 17 September 2019
   Title centered (no underlining)
3. Precise, elegant, mathematical aesthetic
4. Spicy: Steps written with proper notation

Grading policy: full credit or redo

(collect exams and projects in your personal classroom binder)

GQ: How do we calculate the area of a triangle?

CCSS: HSG.CO.A.1 Know precise geometric definitions 2.3 Wednesday 18 Sept

Bisector and measurement practice

1. Midpoint calculations
2. Measuring an obtuse angle
3. Drawing a rectangle
4. Half rectangle areas

Lesson: Triangle area $A_{\triangle} = \frac{1}{2}bh$

Midpoint average method, vector method

Homework: Problem set 2-3

GQ: How do we solve for a missing value?

CCSS: HSG.CO.A.1 Know precise geometric definitions 2.4 Thursday 19 Sept

Bisector and area practice

1. Construct a perpendicular bisector
2. Midpoint calculations
3. Triangle area
4. Segment addition

Lesson: Construct a perpendicular through a point on a line

Solving for an input parameter value

Homework: Problem set 2-4

GQ: How do we calculate perimeter?

CCSS: HSG.CO.A.1 Know precise geometric definitions 2.5 Friday 20 Sept

Do Now Quiz

1. Construct a perpendicular bisector
2. Midpoint calculations
3. Triangle area
4. Segment addition

Lesson: Perimeter; Complementary & supplementary angles

Homework: Problem set 2-5

GQ: How do we classify angle pairs?

CCSS: HSG.CO.A.1 Know precise geometric definitions 1b.3

Do Now: Construction practice and review

1. Given $\overline{AB}$, construct a congruent line segment
2. Given $\overline{DE}$, construct an equilateral triangle

1-5 Exploring Angle Pairs pp. 34-37
Classwork problems 7-26 odds pp. 38
Construct a perpendicular bisector

Homework: Angle pair practice

GQ: How do we classify angle pairs?

CCSS: HSG.CO.A.1 Know precise geometric definitions 1b.4

Do Now: Angle pair practice. Show steps, including the check.

1. Given two supplementary angles: $m\angle 1 = 50$, $m\angle 2 = x$. Find x.
2. Given two complementary angles: $m\angle 1 = x + 10$, $m\angle 2 = x + 20$. Find $m\angle 1$.
3. Given two vertical angles: $m\angle 1 = 3x + 10$, $m\angle 2 = 55$. Find x.

1-5 Exploring Angle Pairs pp. 34-37
Classwork problems 8-30 evens pp. 38-39
Construct a perpendicular bisector

Homework: Angle pair practice

GQ: How do we do classical constructions?

CCSS: HSG.CO.D.12 Congruence, Make geometric constructions 1b.5

Do Now: Angle pair practice

Constructions due today: Complete, correct, precise, elegant

Standard header. (you may combine constructions on same page)

1. Equilateral triangle (you may combine on same page)
2. Congruent segments
3. Perpendicular bisector
4. New: Angle bisector
5. Spicy: Flower design p. 42

Classwork problems 3-25 odds pp. 41

Homework: Angle pair practice