

Mathematics Class Slides

Bronx Early College Academy

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21-25 September 2020

GQ: How do we solve for segment lengths?

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

1.2 Wedn 23-24 Sept

Do Now: Complete Google Form in G-Classroom

Lesson:

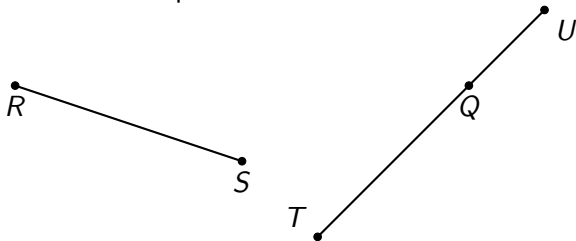
Point, line segment, end point, collinear, distance or length;
line, ray, plane, coplanar, congruent, angle, vertex

Midpoints, bisectors, practice segment addition situations

Review: points, segments, length

Give an example of each geometric object. Use proper notation.

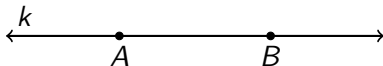
1. point
2. line segment
3. end point
4. three collinear points



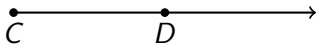
5. Given $TQ = 1.4$, $QU = 0.6$. Find TU .

More definitions: lines, rays, planes,

A *line* extends infinitely in both directions, \overleftrightarrow{AB} .
(sometimes labeled with a small letter, for example, line k)



A *ray* has one end point and extends infinitely in one direction, \overrightarrow{CD} .

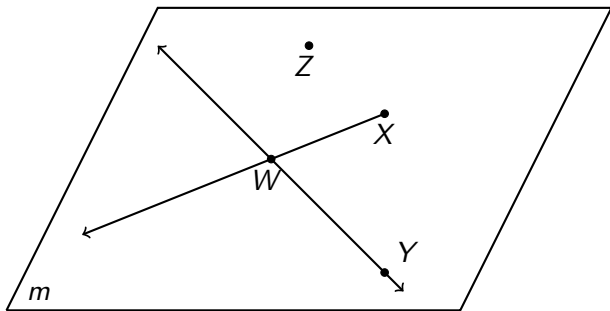


A *plane* is flat and extends infinitely in two directions, p .



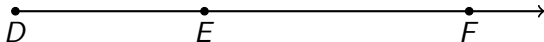
Several objects are shown in a plane

1. T F The name of the plane is m
2. T F The line \overleftrightarrow{WY} is in the plane
3. T F The ray \overrightarrow{WX} is shown in the plane
4. T F Points W , X , and Z are collinear



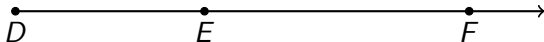
Solve for length using the Segment Addition postulate

Given \overrightarrow{DEF} , $DE = x + 1$, $EF = 9$, $DF = 3x$. Find DE .



Solve for length using the Segment Addition postulate

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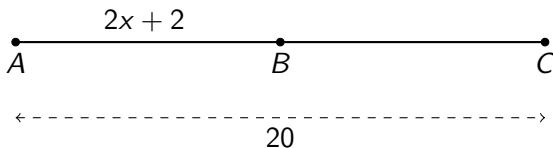
1. Sketch and label the situation
2. Write a geometric equation
3. Substitute algebraic values
4. Solve for x
5. Answer the question
6. Check your answer

The midpoint of a line segment

Also called the bisector

Given \overline{ABC} , with $AB = 2x + 2$, $AC = 20$. $AB = BC$

Find x .



Definition: the *midpoint* or *bisector* of a line segment divides it exactly in half.

GQ: How do we construct an equilateral triangle?

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

1.3 Friday 25, 29 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 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