

Mathematics Class Slides

Bronx Early College Academy

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25 November 2019

6.1 Intro to the coordinate plane and linear functions, 25 November

6.2 Laptop practice - Geogebra graphing functions on coordinate plane, 26 November

6.3 Coordinate geometry practice, 27 November

6.4 Assessment: distance formula, Monday 2 December

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6.5 Laptop practice - Geogebra distance and the Pythagorean theorem, 3 December

6.5 Re-Assessment: distance formula, Tuesday 3 December

6.6 Midpoint formula, Wednesday 4 December

6.7 Midpoint formula, distance quiz, Thursday 5 December

6.8 Midpoint formula, distance quiz, Friday 6 December

GQ: How do we plot lines on the coordinate plane?

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

6.1 Monday 25 Nov

Do Now: Plotting points and lines

1. Modeling geometric situations with an algebraic equation
2. Slope-intercept form of linear equations
3. Dilation of a line centered at the origin

Review exam results

Lesson: Perpendicular and parallel slopes

Homework: Test corrections due tomorrow

GQ: How do we work on the coordinate plane?

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

6.2 Tuesday 26 Nov

Do Now: Deltamath practice

1. Graphing linear equations
2. Perpendicular and parallel slopes
3. Function and algebraic manipulations

10.1 meets in Room 414 first period tomorrow (advisory schedule)

Homework: Complete Deltamath homework section

GQ: How do we plot lines on the coordinate plane?

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

6.3 Wednesday 27 Nov

Do Now: Plotting points and lines

1. Modeling geometric situations with an algebraic equation
2. Slope-intercept form of linear equations
3. Dilation of a line centered at the origin

Review exam results

Lesson: Perpendicular and parallel slopes

Homework: Test corrections due tomorrow

GQ: How do we plot lines on the coordinate plane?

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

6.4 Monday 2 Dec

Do Now: Plotting, measuring, and translating on the x - y plane

1. Measure horizontal and vertical distances
2. Measure diagonal distances
3. Parabolas, quadratic functions, & function translation

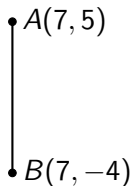
Lesson: the distance formula (Pythagorean theorem)

Review perpendicular and parallel slopes

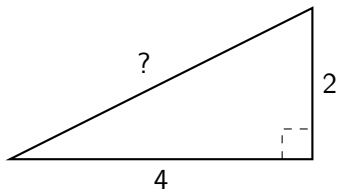
Homework: Khan Academy distance practice

Assessment: Distance formula (on looseleaf paper)

1. Given $A(7, 5)$ and $B(7, -4)$, find AB .



2.



3. What is the length of \overline{CD} if $C(1, -2)$ and $D(7, 6)$?

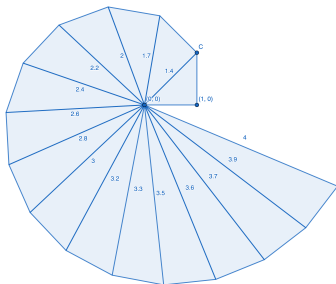
GQ: How do we calculate distance given coordinates?

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

6.5 Tuesday 3 Dec

Do Now Assessment

Project paper: Use paper & pencil or MS Word & Geogebra



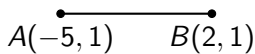
1. Radical spiral
2. Briefly explain how the spiral is constructed in the text.

Lesson: Drawing perpendicular figures in Geogebra

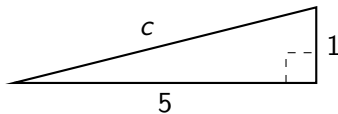
Homework: Complete the project paper (due 10:00pm)

Assessment: Distance formula (on looseleaf paper)

1. Find AB , $A(-5, 1)$ and $B(2, 1)$.



2. Find c .



3. What is the length of \overline{CD} if $C(-1, 15)$ and $D(4, 3)$?

$$\text{Use } d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

GQ: How do we find the midpoint of a line segment?

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

6.6 Wednesday 4 Dec

Do Now pre-quiz: Distance, slope, Pythagorean formula

1. Bisecting horizontal and vertical distances
2. Measure diagonal distances
3. Right triangle situations

Lesson: Midpoint formula (directed segment & averaging forms)

Review area and volume

Homework: Khan Academy distance practice

GQ: How do we find the midpoint of a line segment?

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

6.7 Thursday 5 Dec

Do Now Quiz: Distance, slope, Pythagorean formula

1. Bisecting horizontal and vertical distances
2. Measure diagonal distances
3. Right triangle situations

Lesson: the midpoint formula practice

Review rounding and decimal places

Homework: Khan Academy distance practice

GQ: How do we map angles to slope?

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

6.8 Friday 6 Dec

Do Now: Euclid's Orchard

1. Calculate the slope of triangles in the 1st quadrant
2. Measure their vertex angle measures in degrees
3. Make a table of the function mapping angle measure to slope

Lesson: Introduction to the tangent function

Homework: Khan Academy distance practice