

# Mathematics Class Slides

## Bronx Early College Academy

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24 February 2020

9.1 Triangle congruence theorems, Monday 24 February

9.2 Exam review, Gradescope intro; Tuesday 25 February

9.3 Triangle congruence theorems, Wednesday 26 February

9.4 Triangle congruence proofs, Thursday 27 February

9.5 Proof - Proof intro on Deltamath (laptops), Friday 28 February

9.6 Dilation and similarity review, Monday 2 March

9.7 Dilation and similarity review, Tuesday 3 March

9.8 Dilation and similarity review, Thursday 5 March

9.9 Exam: Transformations, Friday 6 March

## GQ: How do we prove two triangles are congruent?

CCSS: HSG.CO.B6-8 Understand congruence in terms of rigid motions 9.1 Monday 24 February

### Do Now: Transformations

- ▶ Rigid motions: translation, reflection, rotation
- ▶ Corresponding angles and lengths
- ▶ Symmetry in terms of transformations “onto” itself
- ▶ Using the properties of rigid motions in explanations

Lesson: Side-side-side Triangle congruence postulate  
Corresponding parts of congruent triangles are congruent

Homework: Transformations practice handout

## GQ: How do we learn from exam results using Gradescope?

CCSS: HSG.CO.B6-8 Understand congruence in terms of rigid motions 9.2 Tuesday 25 February

Do Now: Algebra mastery practice on Deltamath

- ▶ Circle equations (use Casio calculator)
- ▶ Linear equations of parallel & perpendicular lines

Lesson: Setting up and using Gradescope exam scoring system  
Test corrections

Homework: Complete DoNow Deltamath problems (due 10PM);  
Test corrections due Friday 10PM

## GQ: How do we prove two triangles are congruent?

CCSS: HSG.CO.B6-8 Understand congruence in terms of rigid motions 9.3 Wednesday 26 February

Do Now: Rigid motions, translation, reflection, rotation

- ▶ Triangle congruence theorem applications
- ▶ Compositions of transformations
- ▶ Justifying congruence based on rigid motion

Lesson: Side-side-angle ambiguous case

Corresponding parts of congruent triangles are congruent

Homework: Transformations practice handout

## GQ: How do we prove two triangles are congruent?

CCSS: HSG.CO.B6-8 Understand congruence in terms of rigid motions 9.4 Thursday 27 February

### Do Now: Transformations

- ▶ Reflection over a line not an axis
- ▶ Rotation
- ▶ Symmetry in terms of transformations “onto” itself
- ▶ Using the properties of rigid motions in explanations

Lesson: Proving triangles congruent, two column format

Homework: Deltamath triangle congruence practice

## GQ: How do we prove two triangles are congruent?

CCSS: HSG.CO.B6-8 Understand congruence in terms of rigid motions 9.5 Friday 28 February

### Do Now: Transformations

- ▶ Rigid motions: translation, reflection, rotation
- ▶ Corresponding angles and lengths
- ▶ Symmetry in terms of transformations “onto” itself
- ▶ Using the properties of rigid motions in explanations

Extra credit: Practicing proof with Deltamath (laptops)

10.2 Circle equations, Casio use

Homework: Transformations practice handout

## GQ: How do we calculate dilation ratios?

CCSS: HSG.CO.B6-8 Understand congruence in terms of rigid motions 9.6 Monday 2  
March

### Do Now: Similarity transformations

- ▶ Dilation scale factor  $k$
- ▶ Dilating segments and their properties
- ▶ Similarity ratio situations

Lesson: Review congruence homework problem set

Homework: Complete dilation and similarity problem set



## GQ: How do we calculate dilation ratios?

CCSS: HSG.CO.B6-8 Understand congruence in terms of rigid motions 9.7 Tuesday 3  
March

### Do Now: Similarity transformations

- ▶ Similarity ratio situations
- ▶ Intersecting chords, product format
- ▶ Sample triangle congruence proofs

Lesson: HL congruence theorem; AA & SAS similarity theorems

Classwork: Deltamath comprehensive review

Homework: Complete Deltamath (proof assignment is optional)

## GQ: How do we calculate dilation ratios?

CCSS: HSG.CO.B6-8 Understand congruence in terms of rigid motions 9.8 Thursday 5 March

### Do Now: Similarity transformations

- ▶ Similarity ratio situations
- ▶ Intersecting chords, product format
- ▶ Sample triangle congruence proofs

Lesson: Transformation review

Homework: Study for exam tomorrow

## GQ: How do we identify and perform transformations?

CCSS: HSG.CO.B6-8 Understand congruence in terms of rigid motions 9.9 Friday 6 March

### Exam: Congruence and similarity transformations

- ▶ Rigid motions: translation, reflection, rotation
- ▶ Corresponding angles and lengths
- ▶ Using the properties of rigid motions in explanations
- ▶ Similarity ratio situations
- ▶ Intersecting chords, product format
- ▶ Sample triangle congruence proofs

Homework: Afterschool session to complete trimester assignments