10th Grade Geometry - Unit 13: Regents Review
Bronx Early College Academy

Christopher J. Huson PhD

27 May 2019

13.1 Scale & applications of dilation Tuesday 28 May

13.2 Similarity review Wednesday 29 May

13.3 Constructions Thursday 30 May

13.4 Similarity review Friday 31 May

GQ: How do we use scale factors?

CCSS: HSG.CO.D.12 Congruence, geometric constructions   13.1 Tuesday 28 May

Do Now: Handout

1. Using scale factors
2. Real world situations

Guest teacher, Mr. Segal. Applications of scale factors in finance.

Homework: Problem set, test corrections due Thursday

GQ: How do we use scale factors?

Triangle similarity: for your notebook

Given

$$\triangle ABC \sim \triangle DEF$$

Equivalently

$$\triangle ABC \rightarrow \triangle DEF$$

Complete the three line segment correspondences, three scale factor ratios, & three dilations.

1. $\overline{AB} \rightarrow \overline{DE}$ 1. $k = \frac{DE}{AB}$ 1. $DE = k \times AB$

2. $\overline{BC} \rightarrow$ 2. $k =$ 2. $EF = k \times$

3. $\overline{AC} \rightarrow$ 3. $k =$ 3. $DF = k \times$

What happens if $k = 1$?

GQ: How do we use scale factors?
CCSS: HSG.CO.D.12 Congruence, geometric constructions   13.2 Wednesday 29 May

Do Now: Quadrilateral properties

1. Given a list of features, identify the applicable quadrilateral
2. Early finishers: Triangle congruency proofs

ASA proof of a parallelogram's congruent triangles, implications
Pretest packet: volume, trig, analytic geometry

GQ: How do we use scale factors?
CCSS: HSG.CO.D.12 Congruence, geometric constructions   13.3 Thursday 30 May

Do Now: Similarity transformation

1. List what segments map to what segments
2. Find k as a ratio, apply it to each length.

Binder check
Classical constructions using compass & straightedge

Homework: Problem set

GQ: How do we use scale factors?
CCSS: HSG.CO.D.12 Congruence, geometric constructions   13.4 Friday 31 May

Do Now handout: Volume, density, & trig problems
Classwork review

Assessment: Exam

1. Sector areas and arc lengths; compound areas
2. Volume formulas, compound shapes, density problems
3. Unit conversions, rounding
4. Trigonometric situations
5. Solving for a missing input given a formula result

Quadrilateral packet project grade

Homework: packet