

M153 Reasoning and Proof through Similarity Badge Portfolio: A Showcase of Your Learning

Section 1: Required Tasks

Show off what you did! Submit work (or another agreed upon way of showing your thinking) for each of the tasks listed below.

| | I Can Statements | Required Tasks | Student Reflection: What new learning does the task showcase? |
|-------|---|---|---|
| 153.b | Specify a sequence of transformations that will carry a given figure onto a similar figure. | <ul style="list-style-type: none">IM Geometry: Unit 3 Lesson 6 Activity 2: Alphabet Soup (#1) | |
| 153.d | Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar. | <ul style="list-style-type: none">IM Geometry: Unit 3 Lesson 6 Activity 2: Alphabet Soup (#2) | |
| 153.e | Using similarity transformations, explain the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides. | <ul style="list-style-type: none">IM Geometry: Unit 3 Lesson 3 Activity 2: What Stays the Same? | |

Section 2: Choose Your Favorites

Show off your favorite work! For each expectation, SELECT at least one task from each group to demonstrate what you are learning. Which work do you feel best showcases all of the math you have learned?

| | I Can Statements | Select at least one from each set | Student Reflection: What new learning does the task showcase? |
|-------|--|---|--|
| 153.a | Given a geometric figure and a dilation, draw the transformed figure using tools such as graph paper, tracing paper, or geometry software. | <ul style="list-style-type: none"> IM Geometry: Unit 3 Lesson 1 Activity 2: Mini Me IM Geometry: Unit 3 Lesson 3 Warm-up: Dilating Out IM Geometry: Unit 3 Lesson 4 Activity 1: Dilating Lines | |
| 153.c | Verify experimentally the properties of dilations given by a center and a scale factor. | <ul style="list-style-type: none"> IM Geometry: Unit 3 Lesson 3 Activity 1: All the Scale Factors IM Geometry: Unit 2 Lesson 4 Cool-down: All Together Now | |
| 153.d | Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar. | (Optional if additional evidence is needed) <ul style="list-style-type: none"> IM Geometry: Unit 3 Lesson 7 Activity 1: Stretched or Distorted? Triangles IM Geometry: Unit 3 Lesson 8 Activity 2: Always? Prove It! | |
| 153.e | Using similarity transformations, explain the | (Optional if additional evidence is needed) | |

| | I Can Statements | Select at least one from each set | Student Reflection: What new learning does the task showcase? |
|-------|---|---|--|
| | meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides. | <ul style="list-style-type: none"> IM Geometry: Unit 3 Lesson 4 Activity 2: Proof In Parallel IM Geometry: Unit 3 Lesson 13 Activity 1: Tangled Triangles | |
| 153.f | Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar. | <ul style="list-style-type: none"> IM Geometry: Unit 3 Lesson 9 Activity 1: How Many Pieces? IM Geometry: Unit 3 Lesson 9 Activity 2: Any Two Angles? | |
| 153.g | Use similarity to prove theorems about triangles. | <ul style="list-style-type: none"> IM Geometry: Unit 3 Lesson 8 Activity 1: Faulty Logic | |
| 153.h | Use similarity criteria for triangles to solve problems and to prove relationships in geometric figures. | <ul style="list-style-type: none"> IM Geometry: Unit 3 Lesson 11 Activity 2: Preponderance of Proportional Relationships | |