Learning Targets

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### Similarity

### Lesson 1: Scale Drawings

* I can dilate a figure given a scale factor and center.

### Lesson 2: Scale of the Solar System

* I can calculate the lengths of parts of a scaled drawing.

### Lesson 3: Measuring Dilations

* I know that when figures are dilated by a scale factor of $k$, all lengths in the figure are multiplied by $k$.

### Lesson 4: Dilating Lines and Angles

* I can explain what happens to lines and angles in a dilation.

### Lesson 5: Splitting Triangle Sides with Dilation, Part 1

* I can explain why the segment connecting the midpoints of two sides of a triangle is parallel to the third side and half the length of the third side.

### Lesson 6: Connecting Similarity and Transformations

* I can write similarity statements.
* I know the definition of similarity.

### Lesson 7: Reasoning about Similarity with Transformations

* I know the relationships between corresponding sides and angles in similar triangles.

### Lesson 8: Are They All Similar?

* I can critique proofs that use similarity.
* I can write proofs using the definition of similarity.

### Lesson 9: Conditions for Triangle Similarity

* I can explain why the Angle-Angle Triangle Similarity Theorem works.

### Lesson 10: Other Conditions for Triangle Similarity

* I can explain why the Side-Angle-Side and Side-Side-Side Triangle Similarity Theorems work.

### Lesson 11: Splitting Triangle Sides with Dilation, Part 2

* I can explain why a segment parallel to one side of a triangle divides the other sides proportionally.

### Lesson 12: Practice With Proportional Relationships

* I can find scale factors and use them to solve problems.

### Lesson 13: Using the Pythagorean Theorem and Similarity

* I can find similar triangles formed by the altitude to the hypotenuse in a right triangle.

### Lesson 14: Proving the Pythagorean Theorem

* I can prove the Pythagorean Theorem.

### Lesson 15: Finding All the Unknown Values in Triangles

* I can solve problems involving similar right triangles.

### Lesson 16: Bank Shot

* I can solve and interpret problems involving similar right triangles.



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