

Learning Targets

Constructions and Rigid Transformations

Lesson 1: Build It

- I can create diagrams using a straightedge.
- I know to use a compass to construct a circle.

Lesson 2: Constructing Patterns

- I can follow instructions to create a construction.
- I can use precise mathematical language to describe a construction.

Lesson 3: Construction Techniques 1: Perpendicular Bisectors

- I can construct a perpendicular bisector.
- I understand what is special about the set of points equidistant from two given points.

Lesson 4: Construction Techniques 2: Equilateral Triangles

- I can construct an equilateral triangle.
- I can identify congruent segments in figures and explain why they are congruent.

Lesson 5: Construction Techniques 3: Perpendicular Lines and Angle Bisectors

- I can construct a line that is perpendicular to a given line through a point on the line.
- I can construct an angle bisector.

Lesson 6: Construction Techniques 4: Parallel and Perpendicular Lines

- I can construct a parallel line through a given point.
- I can construct a perpendicular line through a given point.

Lesson 7: Construction Techniques 5: Squares

- I can construct a square inscribed in a circle.
- I can construct a square using a given segment for one of its sides.

Lesson 8: Using Technology for Constructions

- I can use technology to help me construct specific diagrams.

Lesson 9: Speedy Delivery

- I can construct perpendicular bisectors to help solve problems.
- I can use my geometry knowledge to solve problems.

Lesson 10: Rigid Transformations

- Given a figure and the description of a transformation, I can draw the figure's image after the transformation.
- I can describe the sequence of transformations necessary to take a figure onto another figure.
- I know that rigid transformations result in congruent figures.

Lesson 11: Defining Reflections

- I can describe a reflection by specifying the line of reflection.
- I can draw reflections.

Lesson 12: Defining Translations

- I can describe a translation by stating the directed line segment.
- I can draw translations.

Lesson 13: Incorporating Rotations

- Given a figure and the description of a transformation, I can draw the figure's image after the transformation.
- I can describe the sequence of transformations necessary to take a figure onto another figure.
- I know that rigid transformations result in congruent figures.

Lesson 14: Defining Rotations

- I can describe a rotation by stating the center and angle of rotation.
- I can draw rotations.

Lesson 15: Symmetry

- I can describe the reflections that take a figure onto itself.

Lesson 16: More Symmetry

- I can describe the rotations that take a figure onto itself.

Lesson 17: Working with Rigid Transformations

- I can describe a transformation that takes given points to another set of points.

Lesson 18: Practicing Point by Point Transformations

- Given a figure and the description of a transformation, I can draw the figure's image after the transformation.
- I can describe a transformation that takes given points to another set of points.

Lesson 19: Evidence, Angles, and Proof

- I can label and make conjectures from diagrams.
- I can prove vertical angles are congruent.

Lesson 20: Transformations, Transversals, and Proof

- I can prove alternate interior angles are congruent.
- I can prove corresponding angles are congruent.

Lesson 21: One Hundred and Eighty

- I can prove the angles in a triangle sum to 180 degrees.

Lesson 22: Now What Can You Build?

- I can follow directions to construct a pattern.