Learning Targets

## Learning Targets

### Coordinate Geometry

### Lesson 1: Rigid Transformations in the Plane

* I can prove triangles are congruent using coordinates.
* I can reflect, rotate, and translate figures in the coordinate plane.

### Lesson 2: Transformations as Functions

* I can use coordinate transformation notation to take points in the plane as inputs and give other points as outputs.

### Lesson 3: Types of Transformations

* I can determine whether a transformation produces congruent or similar images (or neither).

### Lesson 4: Distances and Circles

* I can derive an equation for a circle in the coordinate plane.

### Lesson 5: Squares and Circles

* I understand how squared binomials relate to the equation of a circle.

### Lesson 6: Completing the Square

* I can complete the square to find the center and radius of a circle.

### Lesson 7: Distances and Parabolas

* I know that a parabola is the set of points equidistant from a given point and line.

### Lesson 8: Equations and Graphs

* I can derive an equation for a parabola in the coordinate plane given a focus and a directrix.

### Lesson 9: Equations of Lines

* I can use the definition of slope to write the equation for a line in point-slope form.

### Lesson 10: Parallel Lines in the Plane

* I can prove that the slopes of parallel lines are equal.
* I can use slopes of parallel lines to solve problems.

### Lesson 11: Perpendicular Lines in the Plane

* I can prove that the slopes of perpendicular lines are opposite reciprocals.
* I can use slopes of perpendicular lines to solve problems.

### Lesson 12: It’s All on the Line

* I can gather information about a line and write its equation.

### Lesson 13: Intersection Points

* I can use a graph to find the intersection points of a line and a circle.

### Lesson 14: Coordinate Proof

* I can use coordinates of figures to prove geometric theorems.

### Lesson 15: Weighted Averages

* I can calculate the coordinates of a point on a line segment that partitions the segment in a given ratio.

### Lesson 16: Weighted Averages in a Triangle

* I can determine the point where the medians of a triangle intersect.

### Lesson 17: Lines in Triangles

* I can determine the point where the altitudes of a triangle intersect.



© CC BY 2019 by Illustrative Mathematics