

UNIT 5 • TRANSFORMATIONS IN THE COORDINATE PLANE**Lesson 1: Introducing Transformations****Lesson 5.1.1: Defining Terms****Warm-Up 5.1.1**

Marta wants to draw a perfect circle on canvas, but her compass is broken. She decides to take a shoelace from one of her sneakers and a pushpin from her drawing desk. She ties the shoelace around a pencil and then pins the other end of the shoelace into the center of the canvas. Marta then stretches the shoelace out until it's pulled tight, and places the pencil point on the canvas. Keeping the shoelace straight, she moves the pencil around the canvas and begins to draw out a circle.

1. Will Marta's approach to drawing a perfect circle work? Why or why not?

2. How could Marta show that the drawing is or is not a perfect circle?