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| **Locating and Plotting Points in First Quadrant of Cartesian Plane** |
| Uses coordinates to describe the location of points on a grid.“The coordinates of Point A are (2, 6).” | Plots and identifies points with decimal coordinates on a grid with various scales.“The bumper cars are at (7.5, 5).” | Translates a point and identifies coordinates of its image.“I translated Point A right 9 units and up 10.5 units to A’(18, 22.5).” | Flexibly predicts the location and coordinates of a point after a translation.“The translation was left 30 units and down 15 units. So, I subtracted 30 from the *x*-coordinate and 15 from the *y*-coordinate: (40 – 30, 45 – 15) 🡪 B’(10, 30).” |
| **Observations/Documentation** |
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| **Applying and Visualizing Translations and Reflections** |
| Identifies translations and reflections of 2-D shapes on a grid.“The first image shows a reflection and the second image shows a translation.” | Identifies the translation/reflection used to move a shape and line of reflection.“The first shape was reflected in a horizontal line midway between the shape and its image. The second shape was translated left 3 squares and up 5 squares.” | Describes and performs translations and reflections on a grid using labelled vertices.“I labelled matching vertices with the same letter. The vertices of the image have prime symbols.” | Visualizes and predicts where image of a shape will be after a translation/reflection. “I can picture Shape A’s reflection Image 1 on the other side of the line, with matching vertices the same distance from the line of reflection. I can picture moving Shape A left 8 squares and down 7 squares to Image 2.” |
| **Observations/Documentation** |
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