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**Eureka Math Tips for Parents**

Grade 5 • Module 6

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| **Problem Solving with the Coordinate Plane** In Module 6, students develop a coordinate system for the first quadrant of the coordinate plane and use it to solve problems. They explore the relationship between points, ordered pairs, patterns, and lines. The module finishes with an exploration of the coordinate plane in real world applications.  | **Grade Level Standards**5.G.1, 5.G.2, 5.OA.2, 5.OA.3**Student Report Card**Understands volume, attributes of 2-D figures and the coordinate plane. |

**Key Vocabulary**

* Axis: fixed reference line for the measurement of coordinates
* Coordinate: number that identifies a point on a plane
* Coordinate pair: two numbers that are used to identify a point on a plane; written (x, y) where x represents a distance from 0 on the x-axis and y represents a distance from 0 on the y-axis
* Coordinate plane: plane spanned by the x-axis and y-axis in which the coordinates of a point are distances from the two perpendicular axes
* Ordered pair: two quantities written in a given fixed order, usually written as (x, y)
* Origin: fixed point from which coordinates are measured; the point at which the x-axis and y-axis intersect
* Quadrant: any of the four equal areas created by dividing a plane by an x-axis and y-axis

**How you can help at home:**

* Play the game Battleship, if you have it! It gives good practice with locating points on a coordinate plane.
* Practice following rules to find ordered pairs, e.g. if the rule is y = double x plus 1, what is y if x is 3? 4? 5? (Answers are 7, 9, 11.)

**Models and Representations**

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| **Plotting a Coordinate Pair**How would you plot the point (2,5) on the coordinate grid? Start at the origin and move 2 units over on the x-axis. Then move 5 units up on the y-axis. | **Plotting Coordinates and Finding Patterns**Write a rule showing the relationship between the x- and y- coordinates of points on the line. Each y- coordinate is 2 times greater than its corresponding x-coordinate. |
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| **Example Application Problem**Harry runs a hot dog stand at the county fair. When he arrived on Wednesday, he had 38 dozen hot dogs on his stand. The graph shows the number of hot dogs (in dozens) that remained unsold at the end of each day of sales.1. How many dozen hot dogs did Harry sell on Wednesday? How do you know? 2. Between which two-day period did the number of hot dogs sold change the most? Explain how you determined your answer. |

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