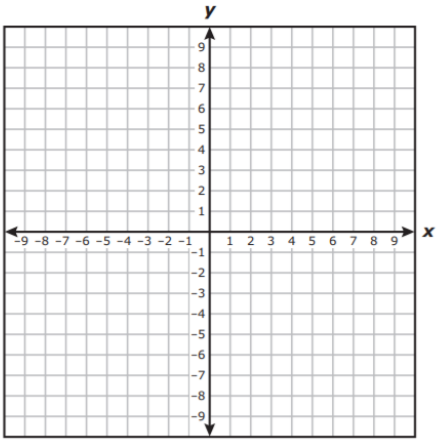
Algebra 1

Tic-Tac-Toe Board #1

Week of March 23 – 27 and Week of March 30 – April 3

A.3(C) graph linear functions on the coordinate plane and identify key features, including x-intercept, y-intercept, zeros, and slope, in mathematical and real-world problems

Directions: Week of March 23 – 27, complete the problem in the middle and then choose 2 other rectangles to complete and make your tic-tac-toe. You will have completed 3 assignments this week. On the week of March 30 – April 3, you will choose only 2 boxes to make your tic-tac-toe for the week. You will have completed only 2 assignments this week.

Graph the function described in the center and identify the *y*-intercept.	Define x-intercept, y-intercept, zero, and slope. Draw the function *f* below on the graph provided and label the x-intercept, y-intercept, and zero.	Log into Imagine Math using the JISD portal and complete 2 full lessons.
Log into Imagine Math using the JISD portal and complete 1 full lesson and play 30 minutes of Imagine Math Facts.	The graph of the linear function *f* passes through the point (1, -9) and has a slope of -3.  What is the zero of *f*? (*Remember the zero of a function is the x-intercept)*	Describe an example of how slope can be used in real life to solve a problem we face. What would the slope represent in the example you described?
Graph another line on the coordinate grid in the center that has the same slope as the function *f* but goes through the origin. What do you notice about the two likes?	Log into Imagine Math using the JISD portal and complete 1 full hour of Imagine Math Facts.	If the x- and y-axes represent the distance in yards from a kayak floating at the point (0,0), the function *f* can describe a duck flying and swimming. Describe what the slope, y-intercept, and x-intercept represent in this situation.

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Algebra 1

Tic-Tac-Toe Board #2

Week of April 6 – 10 and Week of April 13 – 17

A.2(C) write linear equations in two variables given a table of values, a graph, and a verbal description

Directions: Week of April 6 - 10, complete the problem in the middle and then choose 2 other rectangles to complete and make your tic-tac-toe. You will have completed 3 assignments this week. On the week of April 13 - 17, you will choose only 2 boxes to make your tic-tac-toe for the week. You will have completed only 2 assignments this week.

<table>
<tr>
<td>Write the equation of the line represented by the table in the center in standard form.</td>
<td>Write a short story that explains what is happening in the situation described in the center.</td>
<td>Log into Imagine Math using the JISD portal and complete 2 full lessons.</td>
</tr>
<tr>
<td>Log into Imagine Math using the JISD portal and complete 1 full lesson and play 30 minutes of Imagine Math Facts.</td>
<td>The table shows the amount of pet food in cups remaining in an automatic feeder as a function of the number of meals the feeder has dispensed.

Automatic Feeder
<table><tr><th>Number of Meals Dispensed, n</th><th>Amount of Pet Food Remaining, f(n) (cups)</th></tr><tr><td>1</td><td>21</td></tr><tr><td>3</td><td>15</td></tr><tr><td>6</td><td>6</td></tr><tr><td>7</td><td>3</td></tr></table>What is the slope of f(n)? What is the y-intercept?</td>
<td>Write the equation of the line represented by the table in the center in slope-intercept form.</td>
</tr>
<tr>
<td>Write the equation of the line represented in the table in point-slope form. Which point did you choose to use and why?</td>
<td>Log into Imagine Math using the JISD portal and complete 1 full hour of Imagine Math Facts.</td>
<td>Describe what the slope, y-intercept, and x-intercept represent in the situation represented by the table in the center.</td>
</tr>
</table>

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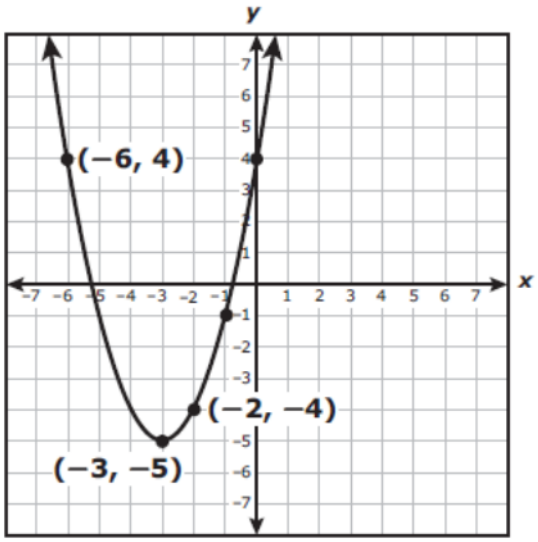
Algebra 1

Tic-Tac-Toe Board #3

Week of April 20 – 24 and Week of April 27 – May 1

A.7(A) graph quadratic functions on the coordinate plane and use the graph to identify key attributes, if possible, including x-intercept, y-intercept, zeros, maximum value, minimum values, vertex, and the equation of the axis of symmetry

Directions: Week of April 20 - 24, complete the problem in the middle and then choose 2 other rectangles to complete and make your tic-tac-toe. You will have completed 3 assignments this week. On the week of April 27 – May 1, you will choose only 2 boxes to make your tic-tac-toe for the week. You will have completed only 2 assignments this week.

If the graph of the function in the center were shifted 5 units up and 3 units right, what would be the coordinates of the vertex? What would the y-intercept be? What do you notice about the vertex and the y-intercept in this situation?	Define x-intercept, y-intercept, zero, maximum value, minimum value, vertex, and axis of symmetry. On the graph of the function *f*, label the x-intercepts, y-intercept, vertex, and zeros.	Log into Imagine Math using the JISD portal and complete 2 full lessons.
Log into Imagine Math using the JISD portal and complete 1 full lesson and play 30 minutes of Imagine Math Facts.	The graph of the quadratic function *f* is shown on the grid.  What is the y-intercept, vertex, and equation of the axis of symmetry?	The shape that a quadratic function makes is called a parabola. Look up real life examples of parabolas and list them. How is it helpful for these examples to be in the shape of a parabola?
If the quadratic function *f* graphed in the center were reflected, what would be the coordinates of the vertex and y-intercept? Do the zeros of the function change? Why or why not?	Log into Imagine Math using the JISD portal and complete 1 full hour of Imagine Math Facts.	The duck is at it again. If the x- and y-axes represent the distance in yards from a kayak floating at the point (0,0), the function *f* can describe a duck flying and swimming. Describe what the x-intercepts, y-intercept, and the vertex represent in this situation.

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Algebra 1

Tic-Tac-Toe Board #4

Week of May 4 – 8 and Week of May 11 – 15

A.2(I) write systems of two linear equations given a table of values, a graph, and a verbal description

A.5(C) solve systems of two linear equations with two variables for mathematical and real-world problems

Directions: Week of May 4 - 8, complete the problem in the middle and then choose 2 other rectangles to complete and make your tic-tac-toe. You will have completed 3 assignments this week. On the week of May 11 - 15, you will choose only 2 boxes to make your tic-tac-toe for the week. You will have completed only 2 assignments this week.

For the situation in the center, how much does a large envelope cost?	What does it mean to be the solution to a system of equations? Is it possible for a system of equations to not have a solution? If so, please explain.	Log into Imagine Math using the JISD portal and complete 2 full lessons.
Log into Imagine Math using the JISD portal and complete 1 full lesson and play 30 minutes of Imagine Math Facts.	Two customers went to a post office to buy postcards and large envelopes. Each postcard costs the same amount, and each large envelope costs the same amount. • The first customer paid $12 for 14 postcards and 5 large envelopes. • The second customer paid $24.80 for 10 postcards and 15 large envelopes. Write the system of equation that models this situation.	For the situation in the center, how much does a postcard cost?
Graph the two equations from the situation in the center, label your axes, and label the solution to the system of equations.	Log into Imagine Math using the JISD portal and complete 1 full hour of Imagine Math Facts.	The duck is back and on the attack. If the path of the kayaker is modeled by the equation y = 2x +5 and the duck is modeled by the equation y = 3x, where y is the distance traveled and x is the time, how long will it take for the duck to catch the kayaker?

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