**Vertex Form of Quadratic Functions Matching**

Thank you for purchasing this activity. I hope that your students have a fun time learning and matching the pieces ☺

Teaching Thoughts:

\*Review what vertex form of a quadratic function is with the entire class.

\*Break the students up into small groups of 2 or 3. Tell the students they need to discuss the function they are given and see if together they can find the axis of symmetry, vertex, and graph. I would not allow them to use calculators to match the pieces, however, you could give them a time a limit and then use calculators to check their work. Once the students are finished, have them write a short paragraph on their thoughts for the activity. Was it easy or hard? What parts were challenging, if any? Did it help having other students to discuss your thoughts with?

\*\*\*\*For this game you can either cut out the pieces and put them into small bags or use the sheet where the students can write their answers and mark out what they have used.

\*\*Pieces to cut out

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Axis of Symmetry: x = -1 | Axis of Symmetry: x = 2 | Axis of Symmetry: x = -2 |
| Vertex: (-1, -2) | Vertex: (2, 1) | Vertex: (-2, 1) |
|  |  |  |
| Axis of Symmetry: x = -3 | Axis of Symmetry: x = 2 | Axis of Symmetry: x = 1 |
| Vertex: (-3, 2) | Vertex: (2, 3) | Vertex: (1, 2) |
|  |  |  |
| Axis of Symmetry: x = 0 | Axis of Symmetry: x = 0 | Axis of Symmetry: x = 4 |
| Vertex: (0, 4) | Vertex: (0, -4) | Vertex: (4, 0) |

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Use this list below and match the correct axis of symmetry, vertex, and graph to the correct equation.

|  |  |  |
| --- | --- | --- |
| Equation | Axis of Symmetry | Vertex |
|  | x = -1 | (-2, 1) |
|  | x = -3 | (1, 2) |
|  | x = 0 | (4, 0) |
|  | x = 2 | (0, -4) |
|  | x = 4 | (2, 3) |
|  | x = 0 | (2, 1) |
|  | x = 1 | (-1, -2) |
|  | x = -2 | (-3, 2) |
|  | x = 2 | (0, 4) |

Put your answers below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Equation** | **Axis of Symmetry** | **Vertex** | **Graph** |
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Answers

|  |  |  |  |
| --- | --- | --- | --- |
| **Equation** | **Axis of Symmetry** | **Vertex** | **Graph** |
|  | x = 0 | (0, 4) | G |
|  | x = 1 | (1, 2) | F |
|  | x = -1 | (-1, -2) | A |
|  | x = -2 | (-2, 1) | C |
|  | x = 2 | (2, 3) | E |
|  | x = -3 | (-3, 2) | D |
|  | x = 0 | (0, -4) | H |
|  | x = 2 | (2, 1) | B |
|  | x = 4 | (4, 0) | I |

