**Sketching** Quadratics

Today, we will be practicing sketching quadratics, specifically using the two details that vertex form provides (vertex and direction) or the two details that factored form provides (zeros/x-intercepts and direction) to sketch the basic shapes of the graph. The *A* value of the quadratic (the number in front), will also give you some information. The bigger that *A* is, the skinnier the graph will be, while the smaller that *A* gets, the fatter the graph will be.

**Sketch the quadratics using vertex form.**

|  |  |  |
| --- | --- | --- |
| 1.  Vertex:  Direction (circle one): Up or Down | 2.  Vertex:  Direction (circle one): Up or Down | 3.  Vertex:  Direction (circle one): Up or Down |
| 4.  Vertex:  Direction (circle one): Up or Down | 5.  Vertex:  Direction (circle one): Up or Down | 6.  Vertex:  Direction (circle one): Up or Down |
| 7.  Vertex:  Direction (circle one): Up or Down | 8.  Vertex:  Direction (circle one): Up or Down | 9.  Vertex:  Direction (circle one): Up or Down |

**Sketch the quadratics using factored form.**

|  |  |  |
| --- | --- | --- |
| 10.  Zeros/x-int:  Direction (circle one): Up or Down | 11.  Zeros/x-int:  Direction (circle one): Up or Down | 12.  Zeros/x-int:  Direction (circle one): Up or Down |
| 13.  Zeros/x-int:  Direction (circle one): Up or Down | 14.  Zeros/x-int:  Direction (circle one): Up or Down | 15.  Zeros/x-int:  Direction (circle one): Up or Down |
| 16.  Zeros/x-int:  Direction (circle one): Up or Down | 17.  Zeros/x-int:  Direction (circle one): Up or Down | 18.  Zeros/x-int:  Direction (circle one): Up or Down |