

3.

Solution

Since the line of symmetry will always be a vertical line in all of our parabolas, the general formula for the line will be $z = t$

where t is the first coordinate of the vertex, and it is equal: $-\frac{1}{2(2)} = -\frac{1}{4}$

So, the axis of symmetry is: $z = -\frac{1}{4}$