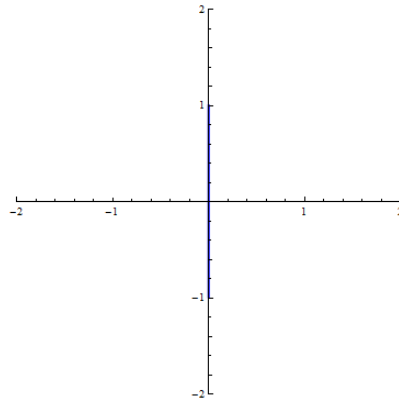


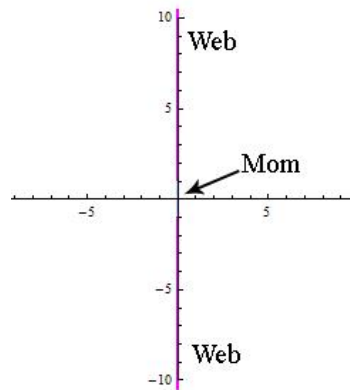
[GeneticsOfPolygons.org](http://GeneticsOfPolygons.org)

## Summary of dynamics of the line segment: $N = 2$

Technically  $N = 2$  is not a polygon, but the Tangent Map software does not know this, so it works fine. Below is Mom:



The web goes off to infinity in both directions and this is exactly what happens to the iterates of any point:



Below are the first 5 points in the orbit of  $q_1 = \{-2, 3\}$ . The return map is  $\tau^2(p) = p + 2(C_k - C_j)$  where  $C_j$  and  $C_k$  are the initial and final corners. This means that points in the 'return' orbit get vertical 'kicks' of magnitude 4 on each iteration and this guarantees uniform divergence in both directions. This divergence takes place along the lines  $x = -2$  and  $x = 2$ .

