

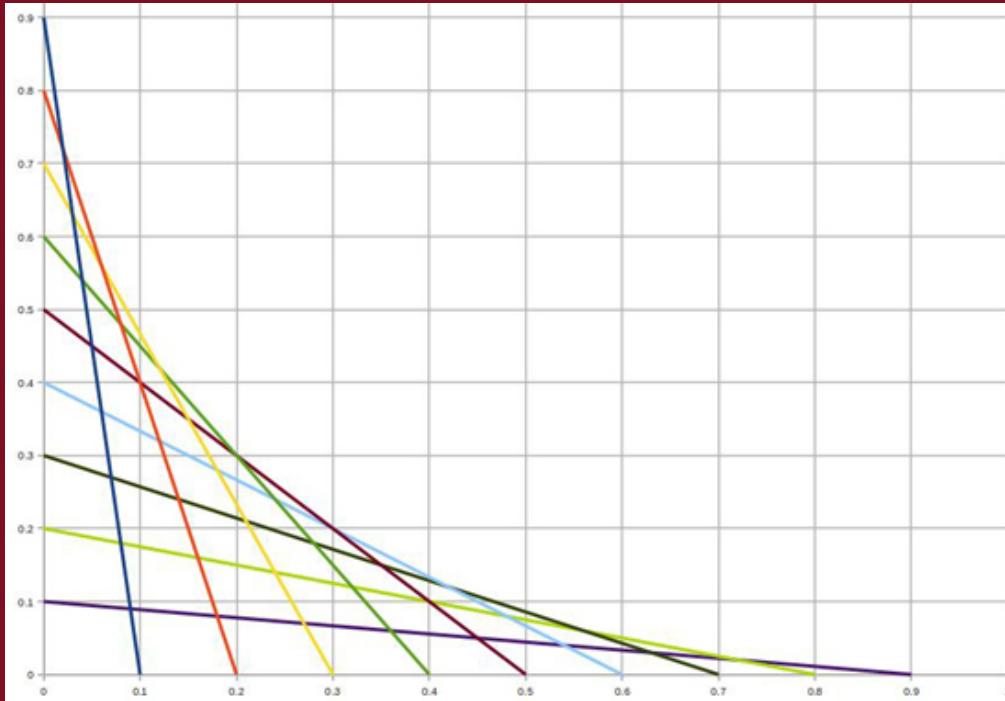
Math and String Art

By Katie and Molly



Can straight line segments
create curves?

The Answer:



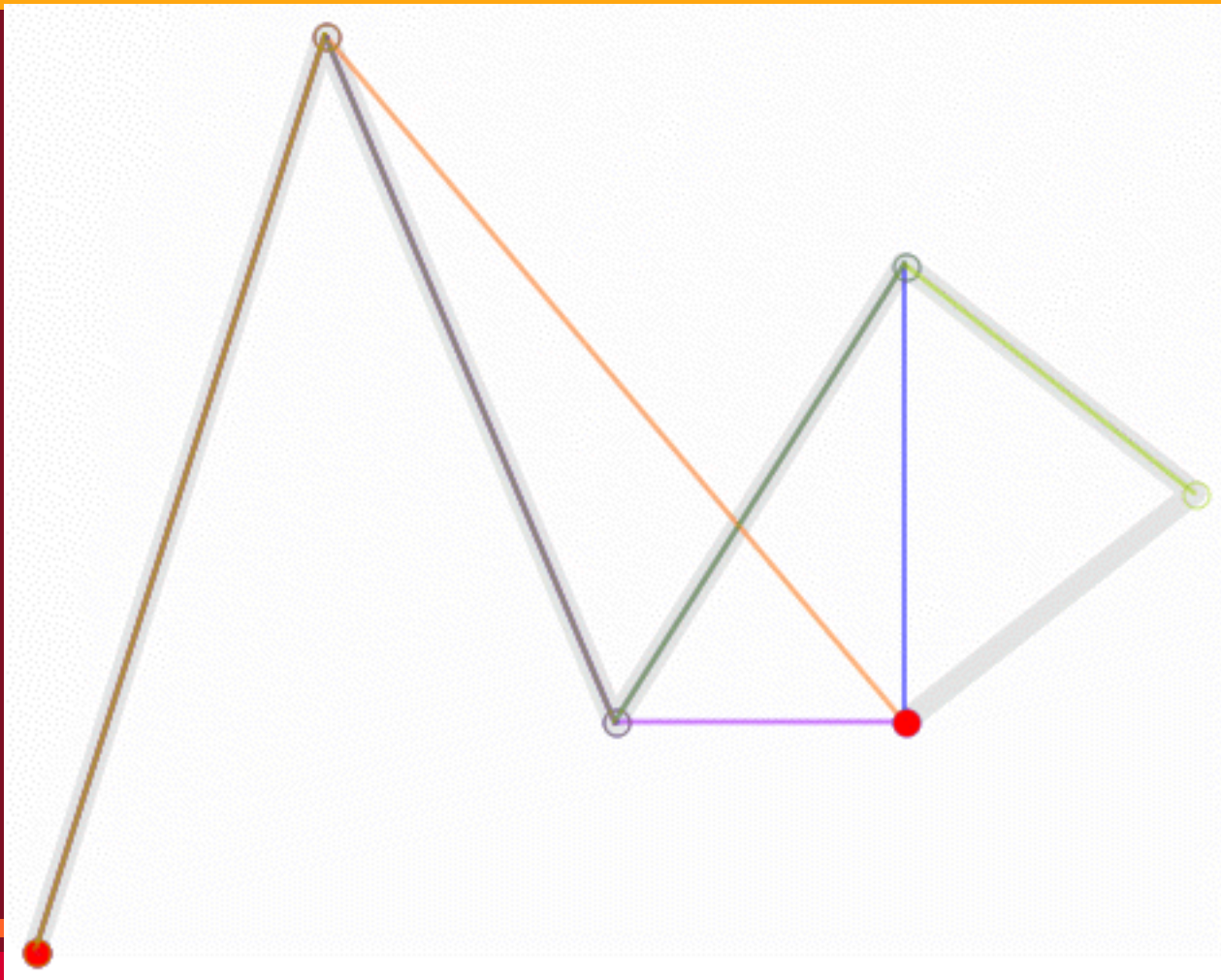
$$y_t(x) = (1-t) - x \left(\frac{1-t}{t} \right)$$

$1-t \rightarrow$ y-intercept
 $(1-t)/t \rightarrow$ slope

Parametric Curves

Bezier Curves:

- 2 points make a line
- Only 2 points must be connected to make a curve
- Control points - Guide the shape of the curve - But do not have to be on the curve



Real Life Example:

The Jerusalem Chords Bridge

Suspension Bridge

Support/Strength in Design



Other Examples:

1. $y = ax^2 + ax + a$, $a = \text{Counting \#s}$
2. Fibonacci Sequence
3. Perfect Square Demo