# Basic Assignment 1: Parametric Curves

- Implement a demo on parametric curves.

- Bare minimum:
  - Draw quadratic Bezier curve in 2D

- Ideas for exploration:
  - Add/remove control points
  - General n-degree Bezier curve
  - Decomposition of Bezier curves
  - Compare parameter sampling methods (uniform vs adaptive)
  - Rational Bezier curves
  - Cubic Catmull-Rom splines
    - Compare 3 ways of setting $t_k$
  - B-splines, NURBS
  - Bezier surface patch in 3D space
    - 3D modeling by combining surface patches
  - Implement $\kappa$-curves