

# Introduction to Computer Graphics

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Lecture 7: Parametric Polynomials

# Outline

- Explicit vs Implicit representation
- Linear approximation
- Parametric form
- Polynomial cubic curves

# Explicit Representation

- Explicit form: value of variable in terms of other  $y=f(x)$
- $x$  is independent and  $y$  is dependent
- Inverse function:  $x=g(y)$
- For a given curve, no guarantee of explicit representation
- Line:  $y=mx+h$  (not for vertical lines)
- Circle:  $y=+/-\text{sqrt}(r^2-x^2)$