CSC 240
Computer Graphics
Sara Mathieson
Fall 2016
Smith College
Outline: 10/12

- Homework 2 Demos
- Begin: Curves
- Lab 4

Office Hours
Extra office hours!
Thursday 5-6pm (355 Ford)

HW 4 due Friday
(extended one day)

Review Session:
Sunday Oct 16 at 4pm
Homework 2 Examples

Ali and Claire

Habiba

Yueyu
Homework 2 Examples

Prayasha

100 sided polygons

Jenny

Perla
Homework 2 Examples

Stephanie

Darpan

HELLO WORLD
Homework 2 Examples

Lauren

Tinli
Homework 2 Examples

BB-8 by Alex and Miriam
Homework 2 Animation Demos
Almost everyone could draw larger polygons on Safari vs. Chrome.

- Chrome, maximum radius around 92, 108
- Safari, maximum radius around 130, 142
5. **Composition:** What transformations could we apply to the house below to rotate it 25 degrees about its center?
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```plaintext
translate(15,20)
rotate(25 deg)
translate(-15,-20)
house()
```
Next Topic: Curves
Bézier Curves

- Named for French auto body designer Pierre Bézier (1960’s)
- Mathematics (Bernstein polynomials) understood much earlier (1910’s)
Application:

Most fonts use Bézier curves

http://learn.scannerlicker.net/
Application:

Most fonts use Bézier curves
Application:

Most fonts use Bézier curves
Bézier Curves

Animation of a quadratic Bézier curve, t in [0,1]
by Phil Tregoning
Example Cubic Spline

Cubic Spline Interpolation - Random Data

Cubic Spline: Code project
Why **cubic** spline?

Tangents continuous, but radius of curvature discontinuous.