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# BEZIER CURVES

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## NOTES ON THE DERIVATION OF BEZIER CURVES CURVE

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# Chapter 1

## Bezier Curves

There are many different kinds of Bezier curve, however they all share some similar properties and can be characterised by their order. For example a zeroth order Bezier curve is just a point, first order is a line, second order is a quadratic curve and third order is a cubic curve. Higher order Bezier curves do exist but don't tend to get used much. All Bezier curves have parameters that are given by "control points". The number of control points is one more than the order of the curve.

### 1.1 Examples

#### 1.1.1 Zeroth Order



Figure 1.1: Example of a zeroth order Bezier curve

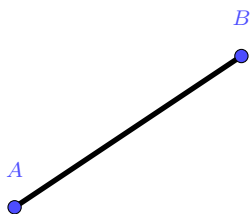


Figure 1.2: Example of a first order Bezier curve

### 1.1.2 First Order

### 1.1.3 Second Order

### 1.1.4 Third Order

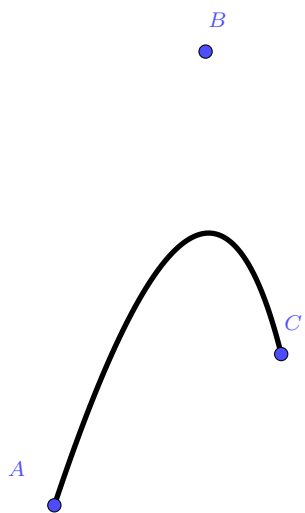


Figure 1.3: Example of a second order Bezier curve

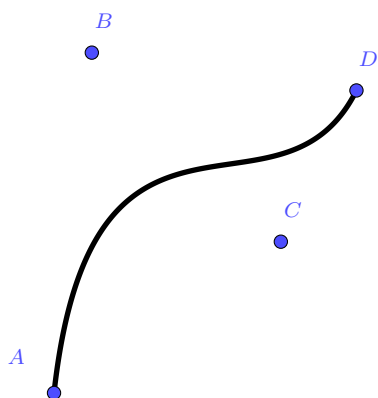


Figure 1.4: Example of a third order Bezier curve