

B-spline curves – Properties

$\sum_{i=1}^{n+1} N_{i,k}(t) \equiv 1$ for all t

$N_{i,k}(t) \geq 0$ for all t

Maximum order $k_{max} = n + 1$

Maximum degree, n , is one less than the order

Exhibits the variation diminishing property

Follows shape of the control polygon

Transform curve – transform control polygon

Everywhere C^{k-2} continuous