

Supplementary Class Notes

C'18 2017-2018

Taylor Polynomials



Taylor Polynomials

Function $y = \sin x$ and Its Approximations by the Taylor Polynomial of Order 3



• Approximation at $x = \pi/6$

Taylor Polynomials

Function $y = e^x$ and Its Approximations by the Taylor Polynomials of Order 1 and 2



- Polynomials of order 1 (P_1) and order 2 (P_2)
- Approximation at x = 0

tanx - Reminder









2

-1

-1

-2⊾ -4

-3

> 0

Polar Curves







⋪

0





b/a = 1: cardioid

 $Limaçon r = b - a\cos\theta$





1 < *b/a* < 2: dimple

 $r = 4 - 2\cos\theta$



 $b/a \ge 2$: convex

Polar Coordinates

