

# Presentations

Tony Mendes

Cal Poly, San Luis Obispo



# Tips for good design

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1. Include a title in each frame.
2. Do not use small fonts
3. Use `\uncover<n-m>` to reveal content on slides **n-m**.



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# Common Mistakes

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- ▶ Too much content!
- ▶ Lots of text/math on a slide
- ▶ Rapid speech without pauses
- ▶ No images
- ▶ Lots of uncovering (a striptease)



# The Fundamental Theorem of Algebra

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**Theorem:** Every polynomial  $f(x) = a_nx^n + \cdots + a_0$  has a root in  $\mathbb{C}$ .

**Proof:** If  $r \approx 0$ , then  $f(re^{it}) \approx a_0$ , so  $f(re^{it})$  is approximately one point.

If  $r \approx \infty$ , then  $f(re^{it}) \approx a_nr^n e^{int}$ , so  $f(re^{it})$  is approximately a big circle that encircles the origin.

So as  $r$  changes from 0 to  $\infty$ , there are values  $r, t$  such that  $f(re^{it})$  crosses the origin. □

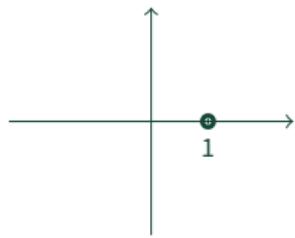


# An example when $f(x) = x^3 - x + 1$

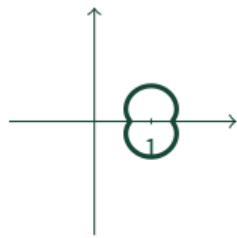
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$f(re^{it})$  for  $t \in [0, 2\pi]$  shown on the complex plane:

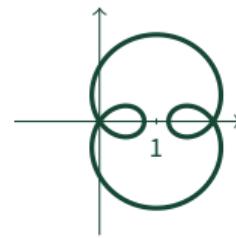
$$r = .1$$



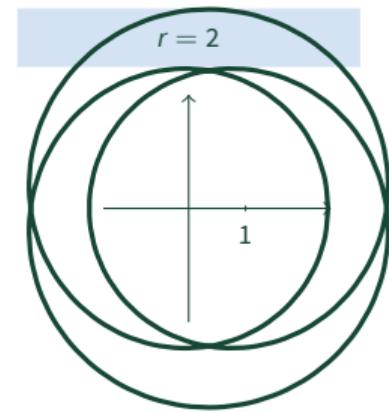
$$r = .5$$



$$r \approx 0.868837\dots$$



$$r = 2$$



# Cal Poly Colors

White	Black	CalPolyGreen	CalPolyGold	DigitalGold	StadiumGold	PolyCanyon	DexterGreen	FarmersMarket	SkyBlue	SurfBlue	Serenity	MorroBlue	MissionBeige	PismoSand	CoastSage	Sycamore	KennedyGray	SealGray	HeritageOrange	HeritageOrange50	Avocado	Avocado50
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