

## Week 2

## Practice Problems

Solve Equations

- $(x^2 - 1)(x^2 + 2x + 1) = 0$
- $3x^4 - 2x^2 + 1 = 0$
- $x^3 - 3x^2 + x = 0$

Find all x such that:

- $x^2 - 5x + 6 > 0$
- $\frac{(x-1)(x-3)(x+5)^2}{(x-1)(x-3)} \leq 0$

Simplify

- $\frac{(x^3-1)(x^2-4x+3)}{(x-1)(x-3)}$
- $\frac{(1-(\sin x)^2)(\sin 2x+\sin x)}{2 \sin 2x}$