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#flo

## 1 | Polynomials

- See [KBrefPolynomial](#) ## 0 polynomial
- Has degree  $-\infty$
- Degrees are usually positive, except for the 0 degree
- “that’s too hard, and we’re not going to do it here” ## Identically zero
- Like 0 or  $0x^0$
- Most polynomials are sometimes zero, but polynomials that are “identically zero” means that it’s always zero (instead of just sometimes zero)

$\mathcal{P}_m(F)$

- Polynomials with coefficients in  $F$  whose highest degree is  $m$  ### It’s a finite dimensional vector space
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$$a_0z^0 + \dots + a_mz^m + b_0z^0 + \dots + b_mz^m = (a_0 + b_0)z^0 + \dots + (a_m + b_m)z^m$$


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