

Review for Test

① characteristics of polynomial graph/eq'n

- end behavior (degree and LC)

- y int ~~#~~ always written as a coordinate

- x int (cross, bounce or twist)

how to find → factoring

→ rational root theorem with
synthetic or long division

~~#~~ has to be written as coordinates

- difference b/w x int and factor of eq'n

- min possible # of x ints.

-max #
of vertices

division (long or synthetic)

⚡ careful about missing terms

if $(x-a)$ is a factor then $P(a) = 0$

if dividing by $(x-a)$ and remainder is b
then $P(a) = b$

⚡ intervals where graph is pos/neg

↳ never includes x ints

find equation from graph → solving for a

Factoring * Always common first

2 terms \rightarrow diff of squares

\rightarrow diff of cubes

\rightarrow sum of cubes

3 terms \rightarrow quadratic

\rightarrow quadratic in disguise

$$x^4 - 3x^2 + 2$$

$$\text{let } m = x^2$$

4 or more terms \rightarrow grouping

\rightarrow rational root theorem
division