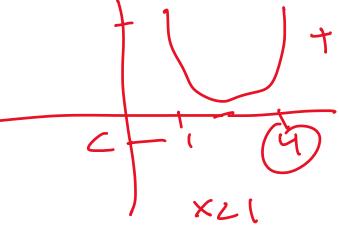
what is it?

- > same thing as a polynomial equation except = replaces by, L > 4 >

Real Zeroes and intervals.

- -> Essential to inequalities
- -> Zeroes divide x-axis into intervals that help determine where polynomial dates positive/ negative Values

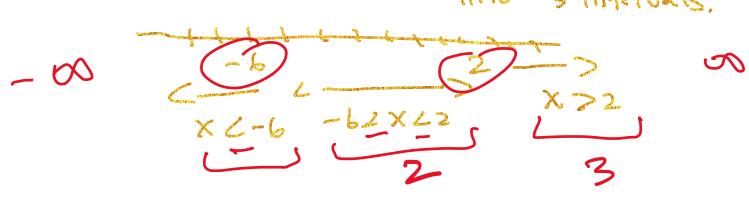


Solving Polynomial inchoclitics:

(1) Graphical understanding.

· bollowiel; x3+HX-15-> (X+P)(X-5)

· Zeroes divide X-exis into 3 intervals:



· Check sign of the polynomial at each interval Crositive (negative); by evaluating polynomial at test point within interval lexamining the Sweh

X74

X=-5 (-5+6) (-5-2)

(1) (-7)

57 (-)

Stips to solve algebraically:

(1) Rewrite inequality such that all terms are on one Side jusules in form of PCX) inequality o

(4) Decide sign de polynomial in each intervel:

2 Factor polynomial to fine zeroes =7

3 Determine intervals based on Zeroes

P(x) 4 0 x3-7320015

X2-6

x2-5x+a 6 0

· USC graph · use sign chart by selecting test points in cally interval to sec if the product Of the Factors is positive? negetive

x2 t96 5x [X3+7x+6x+2-7 (X+3)(x-2)(x+1) ハフン PCK) = 0

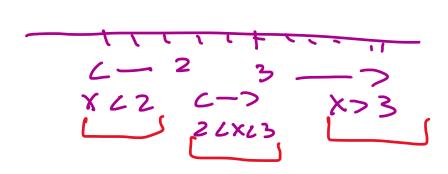
X546447 122

C--32-1C->2-7 XL.3 -3LXL-1-16XL2 X72

Example: X2 - SX+6 LO

(1) Find Factors: x2-5x+6

(2) Determine intervals:



(3) Test points in intervals:

Interval:

- > 2 CXC3 : X=2.5

Factor table: (sign chard)

| CAMPAGE AND ADDRESS OF THE SECOND PROPERTY OF | | | | | |
|--|--|---------------|-----------------|--|---|
| Interval | lest point | Sign of (x.2) | 4120 of (x-3) + | Sign of product | |
| X 15 | K. L. Barret C. Princh in Le Gebrucke misse in 1999, zerokantziako ziene kontrol per ziene de zenetra este ber | | | THE CONTRACTOR OF THE PROPERTY | 1 |
| 2LXL3 | | | | | 2 |
| X > 3 | 4 | + | + | + | 3 |

mouns that value is negative

24×63

560 X

. The only interval that satisfies the polynomial (he pary 1111-15)

[-> value is lactures = = = C-2 Valve 18 not includée 2 >