AB Day 2

Go over HW.

Symmetry using a graph

x-axis $x=y^{2}$

 y-axis $y=x^{2} y=\left|x\right|$

origin $y=x^{3}$

Symmetry using an Equation

 x-axis $f\left(x\right)=-f(x)$

 

 y-axis $f\left(x\right)=f(-x)$

 

origin $f\left(-x\right)=-f(x)$

 

Different Symmetries



Line Symmetry at $x=\frac{(2k+1)π}{2} or \frac{(2k-1)π}{2}$ Point Symmetry at $(kπ, 0)$

 k is an integer



Point Symmetry at $(kπ, 0)$

Inequalities ------0++++++

$x>3$ 3 $[3, \infty )$

 ++++ 0 ----- 0 ++++++

$x\left(x-2\right)<0$

 -1 0 1 2 3 (0, 2)

 ---0+++0+++0+++

$x^{2}\left(x+3\right)\left(x-2\right)^{4}\geq 0$

 -4 -3 -1 0 1 2 3 $[-3, \infty )$

$\frac{\left(x-5\right)^{2}}{x+3}<0$ ----- und++ 0 +++

 -4 -3 0 5 6

Multiply by $\left(x+3\right)^{2}$

$\left(x+3\right)\left(x-5\right)^{2}<0$ $(-\infty , -3)$

 

 