

Cornell Notes

Topic/Objective:

Name:



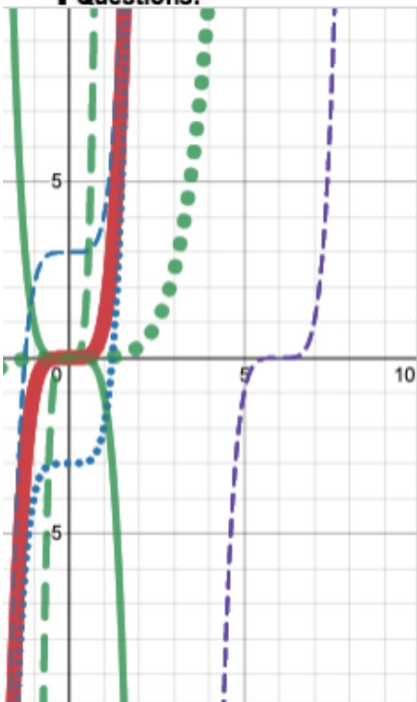
## 3.6 Transformations on Polynomial Functions

Class/Period:

Date:

Essential Question: How do  $a$ ,  $h$ , and  $k$  affect the graph of the polynomial function?

Questions:



Notes:

$$y = a(x-h)^n + k$$

$a$  = narrow, wide, reflect  
 $|a| > 1$     $0 < |a| < 1$     $a < 0$

$h$  = right or left  
 $(x-h)$     $(x+h)$

$k$  = up or down  
 $+k$     $-k$

$n$  = degree (complex)  
 $(x-int)$

Questions:

Notes:

$$y = a(x-h)^k + k$$

Moved up 8

Right 13

Narrow

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$$y = -\frac{1}{8}(x+16)^{11} - 21$$

Down 21

Left 16

Wide

Reflect