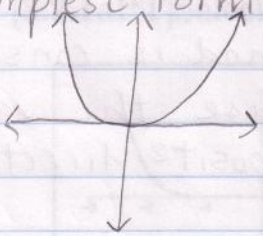
Chelsi Warley
8-31-06
Sect. 29

Homework 3.2

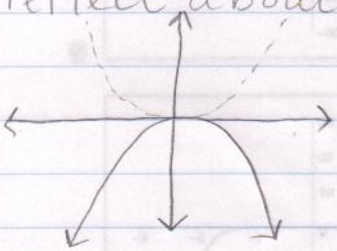
1. graph $y = -(x+1)^6$

simplest form



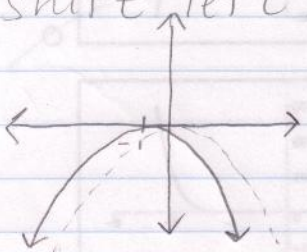
$y = x^6$

reflect about x-axis



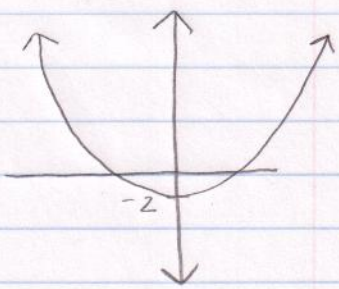
$y = -x^6$

shift left one unit



$y = -(x+1)^6$

2. find the equation of graph
parabola = even power
facing upward = pos. x
shifted down 2 units



$$y = x^6 - 2$$

Extra Credit on back ⟶

Extra Credit problem solutions are provided by Lauren Dale

extra credit

$y = f(x)$

$y + y_0 = f(x - x_0)$, $x_0 > 0$ $y_0 > 0$

- shift the graph right and downward

- ~~no~~ yes it is not consistent, in this case we are subtracting y_0 from y as opposed to adding it so the shift is differt

- yes the same approach does applyto reflection, when it is $-f(x)$ there is a reflection about the x axis and when it is $f(-x)$ there is a reflection about the y axis.

→ $y + y_0 = f(x - x_0)$

⇔ $y - (-y_0) = f(x - x_0)$

x (or y) always moves in the ~~direction~~ positive ~~x0 (or y0)~~ x direction (or positive y-direction). The distance is the number x or y are subtracted by.

$(-y_0)$ in the expression means, ~~no~~ moving along y direction by $-y_0$. which is equivalent to say move in the opposite y direction (down) by y_0.