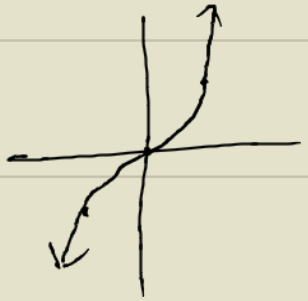
EVEN FUNCTION

$y = x^2$

SYMMETRIC TO y-AXIS

ODD FUNCTION

$y = x^3$



SYMMETRIC TO ORIGIN

#7 $y = 3x^2 + 1$

PLUG $-x$ IN FOR x AND REWRITE SO IT LOOKS LIKE ORIG. FUNCTION THEN ITS EVEN

$y = 3(-x)^2 + 1$

$y = 3x^2 + 1$

EVEN

#8 $y = x^7 - x$

PLUG $-x$ IN FOR x, $-y$ IN FOR y AND SEE IF WE CAN GET ORIG. FUNCTION, THEN IT IS ODD

$-y = (-x)^7 - (-x)$

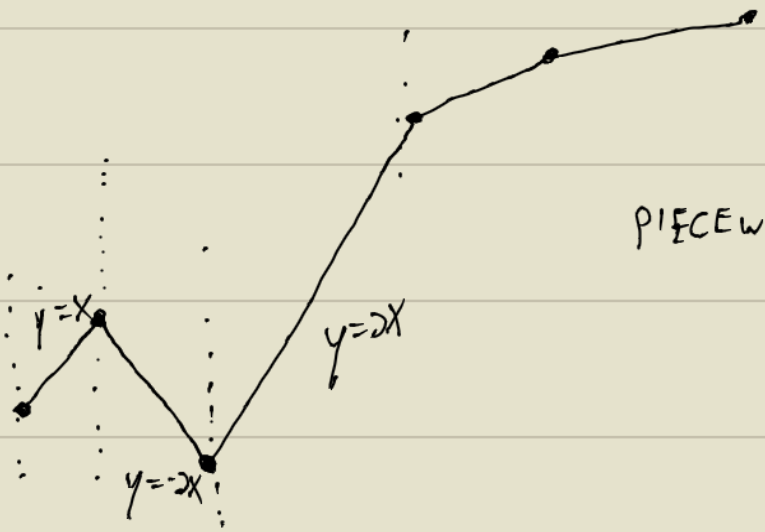
$-y = -x^7 + x$

$-y = -(x^7 - x)$

$\frac{-y}{-1} = \frac{-(x^7 - x)}{-1}$

$y = x^7 - x$

ODD



PIECEWISE FUNCTIONS