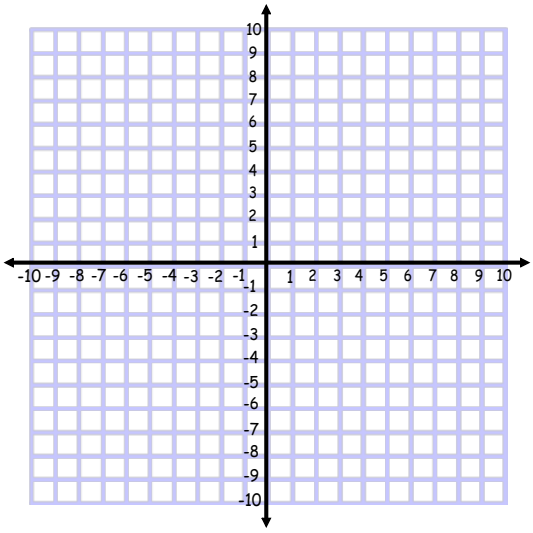
Stick Quiz

Using a graphing calculator identify the zeros, maximums and minimums, then sketch a graph of the equation:

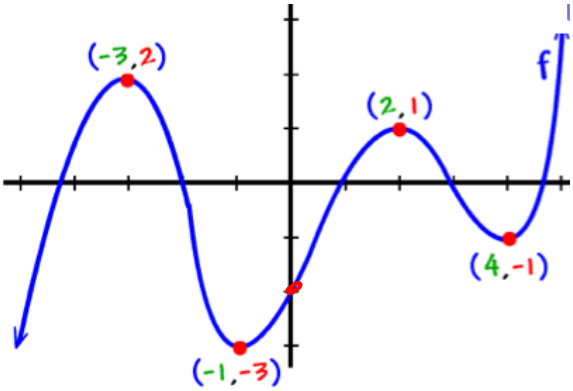
$$f(x)= 2x^3 + 3x^2 - 10x - 3$$



Jan 7-11:29 PM

I can... **identify zeros and intercepts from a graph or an equation and use this information to write an equation or graph a polynomial.**

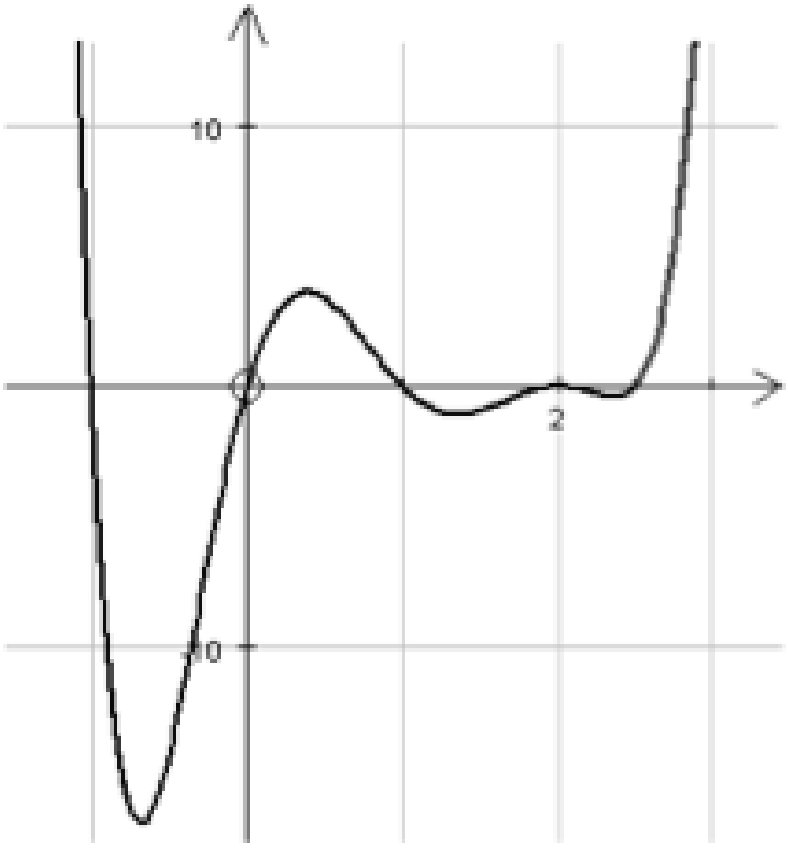
Feb 1-12:47 PM



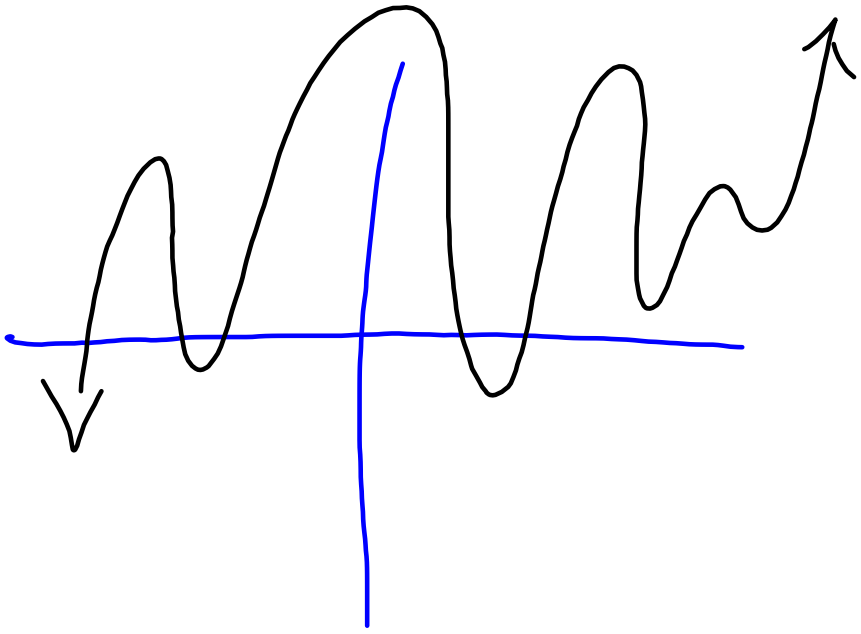
Describe this graph:

This is an Odd, positive polynomial of at least degree 5 with maximums at (2,1) and (-3,2). Minimums at (4,-1) and at (-1, -3).
X-intercepts occur at approximately (-4.2,0), (-2,0), (1,0), (3,0), and (4.5,0) and a y-intercept at (0,-2). As x approaches negative infinity, y goes towards negative infinity and as x approaches infinity, y approaches infinity.

Apr 5-11:32 AM



Apr 5-11:33 AM



Nov 25-1:34 PM

Graph the following equation.

$y = (x + 1)(x - 2)(x + 5)$ 3rd/ODD +

zeros: $y=0$ $0=(x+1)(x-2)(x+5)$

$x+1=0$ $x-2=0$ $x+5=0$

$-1\ -1$ $+2\ +2$ $-5\ -5$

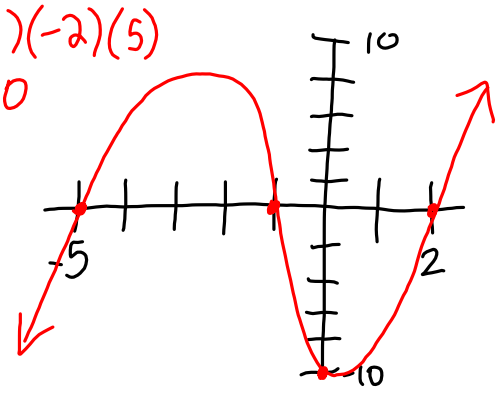
$x=-1$ $x=2$ $x=-5$

$(-1,0)$ $(2,0)$ $(-5,0)$

y-int: $x=0$ $y=(0+1)(0-2)(0+5)$

$(0,-10)$ $y=(1)(-2)(5)$

$y=-10$



Nov 11-5:08 PM

Graph the following equation. 3RD, ODD, Neg ↓

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

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

zeros: $y=0$

$0=-2(x+1)(x+1)(x-3)$

$0\neq -2$ $x+1=0$ $x+1=0$ $x-3=0$

$x=-1$ $x=-1$, $x=3$

TURNS!

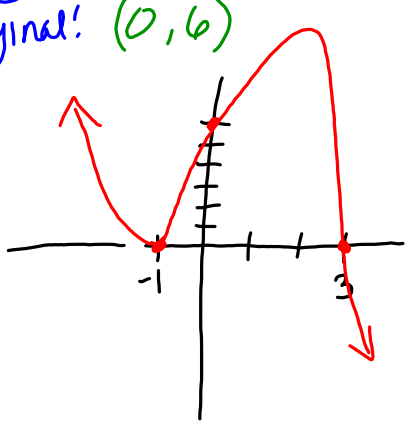
y-int: $x=0$ plug into original! $(0,6)$

$y=-2(0+1)^2(0-3)$

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

$-2(1)(-3)$

$=6$



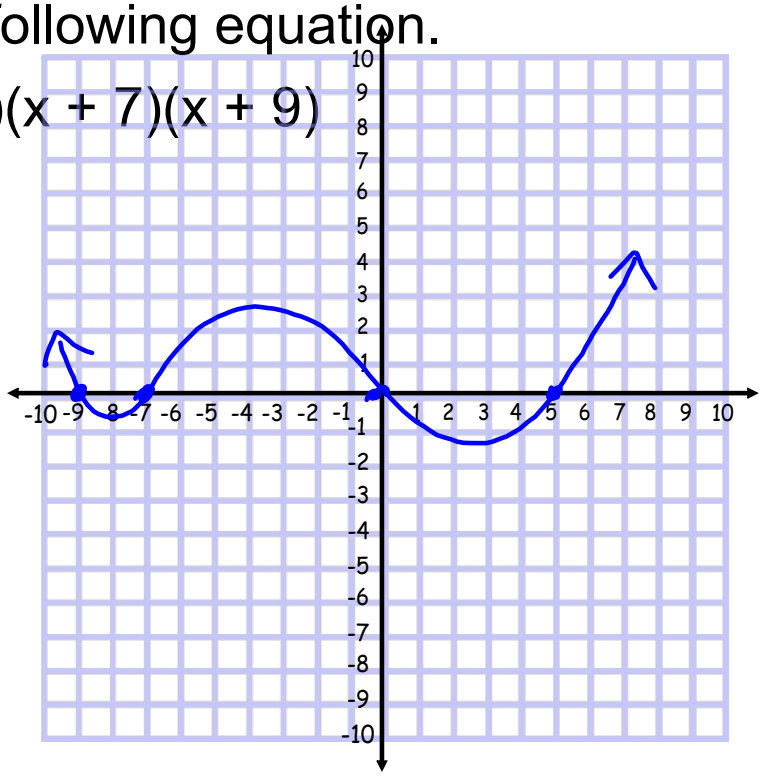
Nov 11-5:08 PM

Graph the following equation.

$y = x(x - 5)(x + 7)(x + 9)$

zeros:

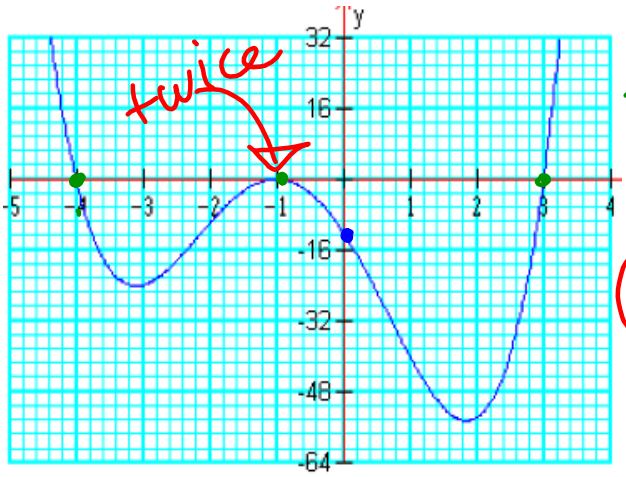
y-int:



Nov 11-5:08 PM

Write an equation for this graph in factored form

Use the zeros just like quadratics



Even +

$x=-4$ $x=-1$ $x=3$

$+4\ +4$ $+1\ +1$ $-3\ -3$

$(x+4)=0$ $(x+1)^2=0$ $(x-3)=0$

$1(x+4)(x+1)^2(x-3)=y$

y-int $x=0$

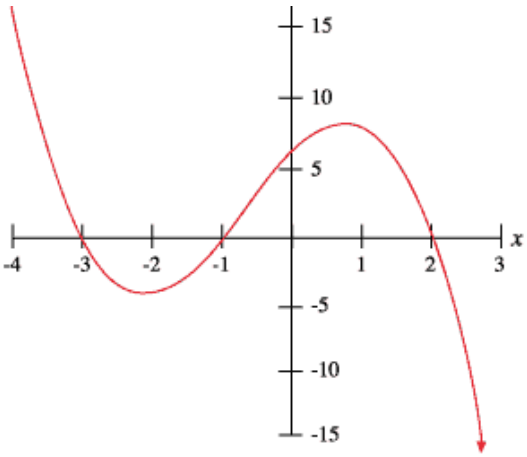
$(0+4)(0+1)^2(0-3)=y$

$4\cdot 1^2\cdot(-3)$

$-12=y$

Apr 5-11:33 AM

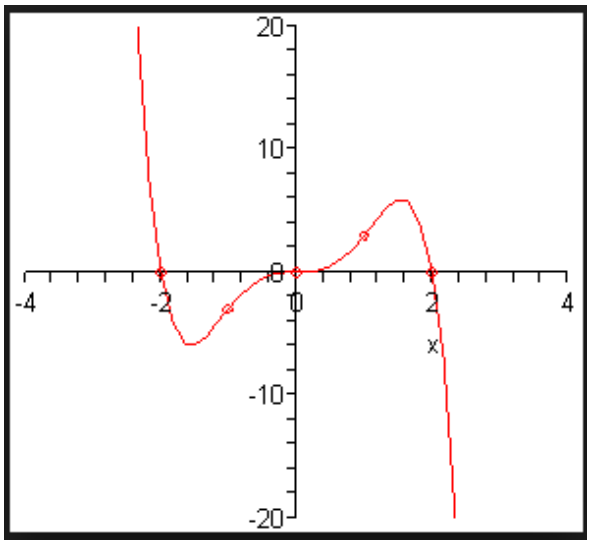
Write an equation for this graph in factored form



Nov 11-5:04 PM

You Try!!

Write an equation for this graph in factored form



Nov 11-5:03 PM

Write a polynomial function whose graph has x-intercepts of 3, 5, and -4 and a y-intercept of 180.

$x=3 \quad x=5 \quad x=-4$

$(x-3)=0 \quad (x-5)=0 \quad (x+4)=0$

$(0, 180)$ (x, y)

$x=0$ $y=180$ → SOLVE FOR a.

$y=a(x-3)(x-5)(x+4)$

$180=a(0-3)(0-5)(0+4)$

$180=a(-3)(-5)(4)$

$\frac{180}{60}=\frac{a(60)}{60}$

$3=a$

$y=3(x-3)(x-5)(x+4)$

Apr 5-11:18 AM

Write a polynomial function whose graph has x-intercepts of 2, -3, and -4 and a y-intercept of 12.

Apr 5-11:18 AM

Homework 5.7

WS

Pg. 363

39-40

Feb 1-12:55 PM

Attachments

Projectile Motion

Screen Capture(5).galleryitem