#51, §5.2

$(-1,-2), (2,1), (-2,1)$

Find the ax^2+bx+c that fits

$(-1,-2)$ $a(-1)^2+b(-1)+c=-2$

$a-b+c=-2$

$(2,1)$ $a(2)^2+b(2)+c=1$

$4a+2b+c=1$

$(-2,1)$ $a(-2)^2+b(-2)+c=1$

$4a-2b+c=1$

$-\frac{7}{3}x^2+\frac{1}{3}$

X	Y1
-1	-2
2	-9
-2	-9

X=

Doesn't check!

(1) $a-b+c=-2$

(2) $4a+2b+c=1$

(3) $4a-2b+c=1$

$-4(1)$ $-4a+4b-4c=8$

$+$ (2) $4a+2b+c=1$

$6b-3c=9$

$-4(1)$ $-4a+4b-4c=8$

$+$ (3) $4a-2b+c=1$

$2b-3c=9$

(1) $2b-3c=9$

(2) $6b-3c=9$

$-3(1)$ $-6b+9c=-27$

(2) $6b-3c=9$

$6c=-18$

$c=\frac{-18}{6}=-3=c$

(1) $2b-3c=9$

$2b-3(-3)=9$

$2b+9=9$

$2b=0$

$b=0$

(1) $a-b+c=-2$

$a-0-3=-2$

$a=1$

So $f(x)=ax^2+bx+c$

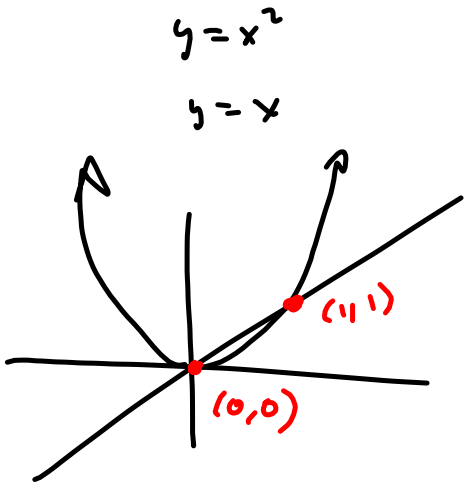
$-\frac{7}{3}x^2+\frac{1}{3}$

x^2-3

X	Y1
-1	-2
2	1
-2	1

X=-1

WORKS!



$y = y$

$x^2 = x$

$x^2 - x = 0$

$x(x-1) = 0$

$x = 0$ OR $x = 1$

$\Rightarrow y = 0$ OR $y = 1$ (using $y = x$)

$(0,0), (1,1)$

FINAL Exam

7:10-9:00
Wednesday
Dec 9th

I turn in final grades by wed, Dec 16th @ 12:00 noon

Grade 'em
Scan 'em
E-mail 'em (with total grade summary).
You CHECK THAT I didn't ROB you.
Then I put in the grades.