

Return
tests

Pick Up
the
WARM Up

$$A \quad 3n^2 - 24 = 0$$

+24 24

$$3n^2 = 24$$

$\frac{\quad}{3}$ $\frac{\quad}{3}$

$$\sqrt{n^2} = \sqrt{8}$$

$$n = \pm \sqrt{8}$$

exact

$$\approx \pm 2.8383$$

$$\pm 2.83$$

$$B. \quad 5t^2 - 20t = 0$$

factor

$$5t(t-4) = 0$$

ZPP

$$5t = 0$$

$\frac{\quad}{5}$ $\frac{\quad}{3}$

$$t-4 = 0$$

+4 +4

$$t = 0 \quad t = 4$$

$$C. \quad x^2 = 18x + 40$$

$$x^2 - 18x - 40 = 0$$

$$(x-20)(x+2) = 0$$

ZPP

$$x-20=0 \quad x+2=0$$

$$x = 20 \quad x = -2$$

by factoring + ZPP if possible

x	x^2	$-20x$
2	$2x$	-40

$$\begin{array}{r} -40x^2 \\ -18x \end{array}$$

$$\begin{array}{r} -x \quad 40x \\ x \quad -40x \\ -2x \quad 20x \\ 2x \quad -20x \end{array}$$

$$D \quad 0 = 3w^2 - 5w - 4 \quad \text{by the Quadratic Formula}$$

$$a = 3$$

$$b = -5$$

$$c = -4$$

$$X = \frac{-(-5) \pm \sqrt{(-5)^2 - 4(3)(-4)}}{2(3)}$$

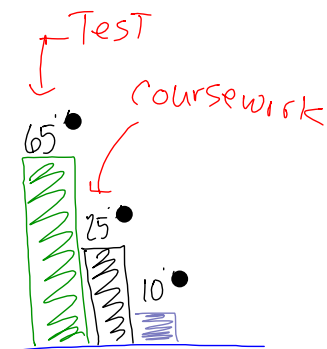
$$X = \frac{5 \pm \sqrt{73}}{6}$$

exact answer



**HW is important
but, so are Warm Ups**

do not work on "finishing" your
homework during class.



from this point forward....

LCA's ✓
or
Exit Tickets ✓

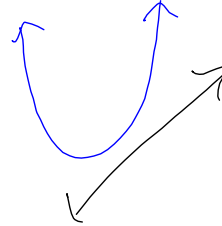
Aim

Use multiple methods to determine intersections

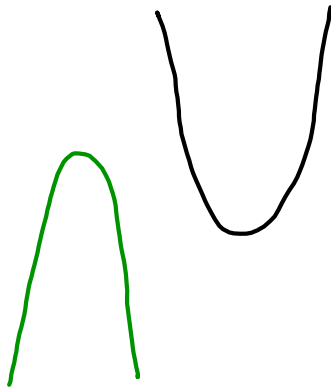


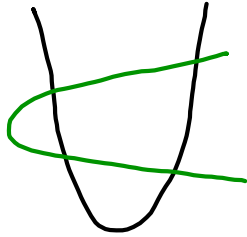
A

B



how many intersections can two parabolas have ?





TWO QUADRATIC FUNCTIONS

$$f(x) = 2x^2 - 5x + 6$$

$$g(x) = -2x^2 - x + 30$$

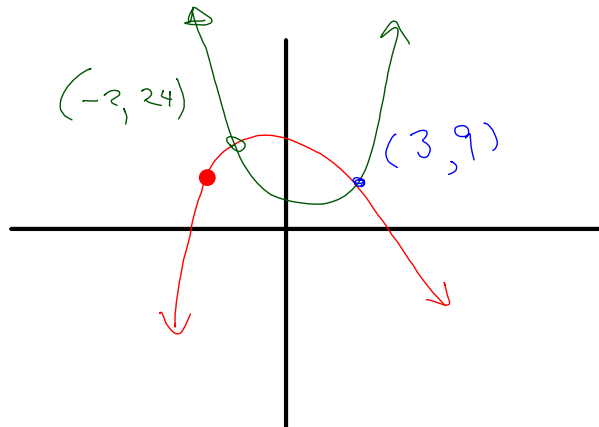
A thought
question
for your
group

How can we find out
the points of intersection
of these 2 parabolas?

Finding Intersections between two functions

$$f(x) = 2x^2 - 5x + 6$$

$$g(x) = -2x^2 - x + 30$$



()
)
()

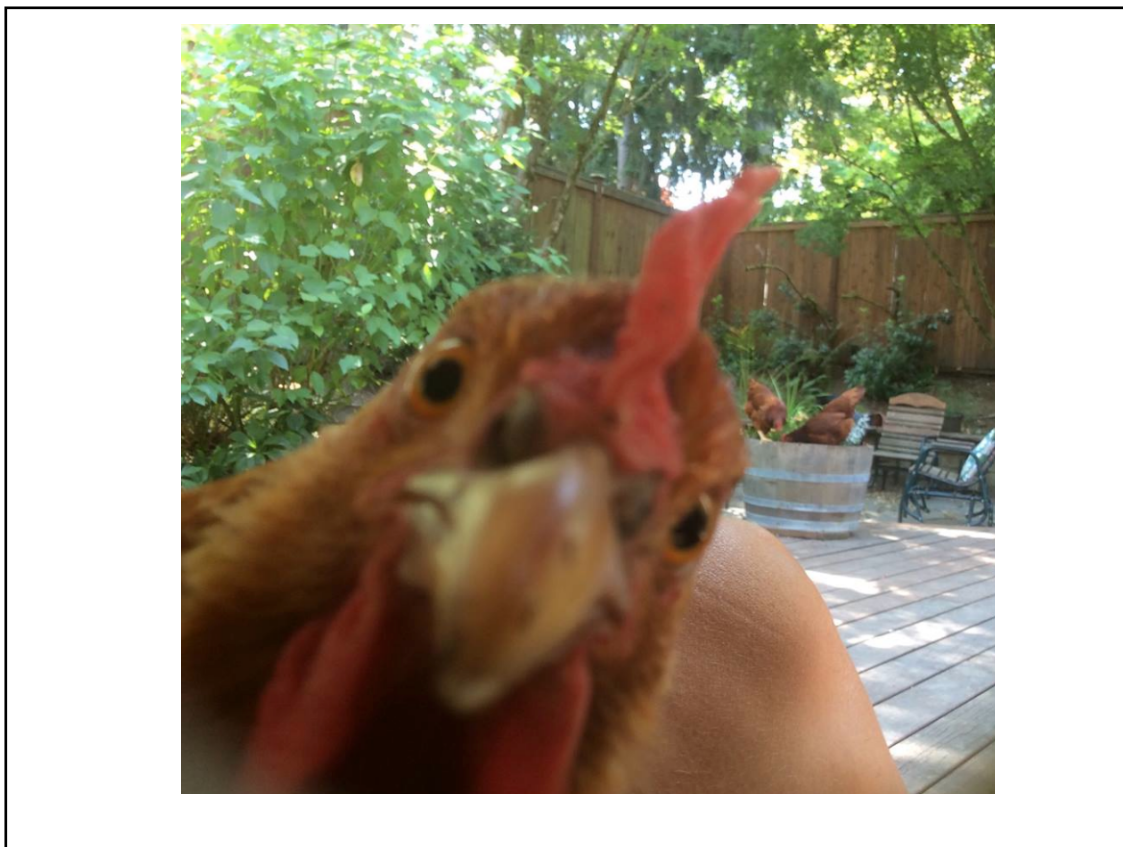
Can also use
tables

any disadvantages?





Dog
Chicken



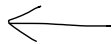
Find the intersection algebraically

$$f(x) = 2x^2 - 5x + 6 \quad g(x) = -2x^2 - x + 30$$

$$2x^2 - 5x + 6 = -2x^2 - x + 30$$

$+2x^2$ $+x$ -30 $+2x^2$ $+x$ -30

Set equal to 0



$$4x^2 - 4x - 24 = 0$$

$$4x^2 - 4x - 24 = 0$$

$$\frac{4(x^2 - x - 6)}{4} = \frac{0}{4}$$

$$x^2 - x - 6 = 0$$

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

z PP

$$x-3=0 \quad x+2=0$$

$$(x=3 \quad x=-2)$$

or use QF.

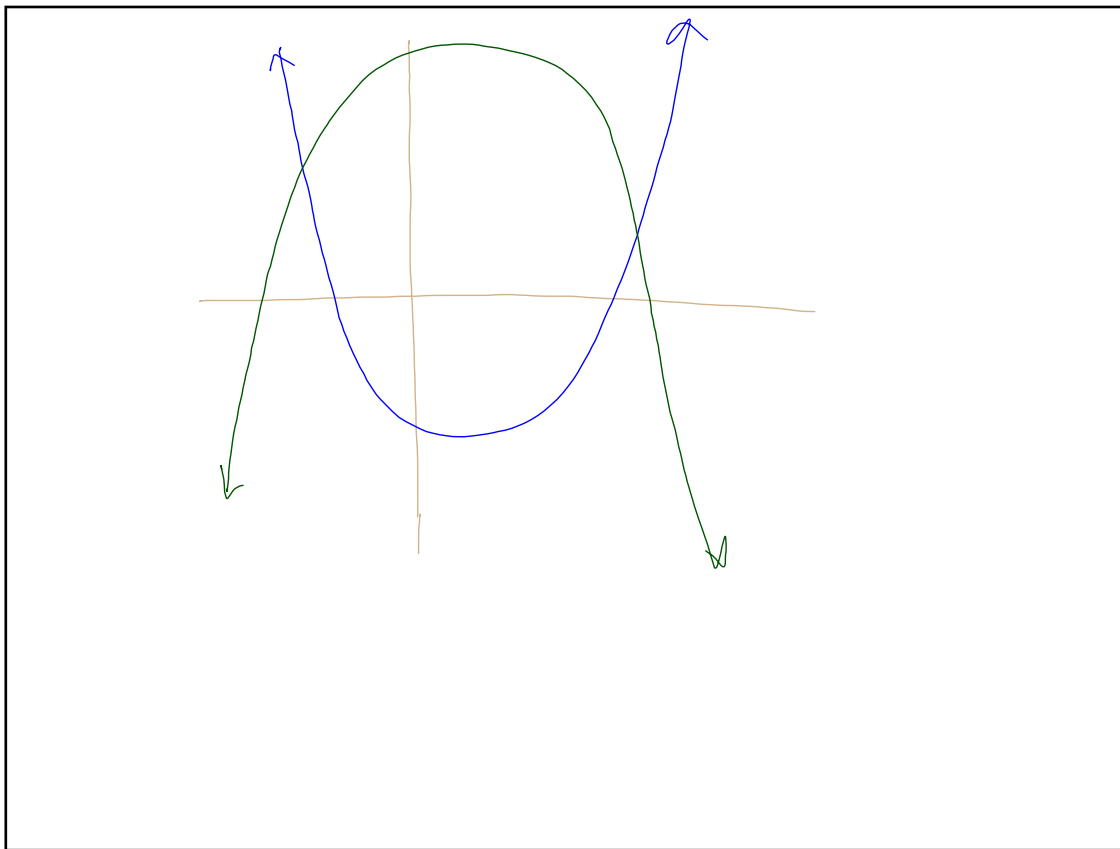
$$a=1$$

$$b=-1$$

$$c=-6$$

B.B.





LCQ

can use your spiral
notebook •

+ See Test 2

- 4 days to get help, re-take
- Check solutions

Assignment

1 46, 48, 50-52

146, 47bc, 48b, 49-52

Mr. C → Pdf

$$5x - y = 35$$

$$3x + y = -3$$

Could use
elimination

$$\checkmark 5x - y = 35 \quad \rightsquigarrow \quad y = 5x - 35$$

$$\checkmark 3x + y = -3$$

can use substitution
(less efficient in this case)

$$3x + y = -3$$

$$3x + (5x - 35) = -3$$

$$8x - 35 = -3$$

$$\quad \quad \quad +35 \quad 35$$

$$8x = 32$$

$$x = 4$$

$$x = 4$$

$$y = -15$$

$$(4, -15)$$

If an approximate answer is needed, we can also use a **GDC**, graphing display calculator

$$\begin{array}{r} 5x - y = 35 \\ +y \quad +y \end{array}$$

$$\begin{array}{r} 5x = y + 35 \\ -35 \quad -35 \end{array}$$

$$y = 5x - 35$$

$$\begin{array}{r} 3x + y = -3 \\ -3x \quad -3x \end{array}$$

$$y = -3x - 3$$