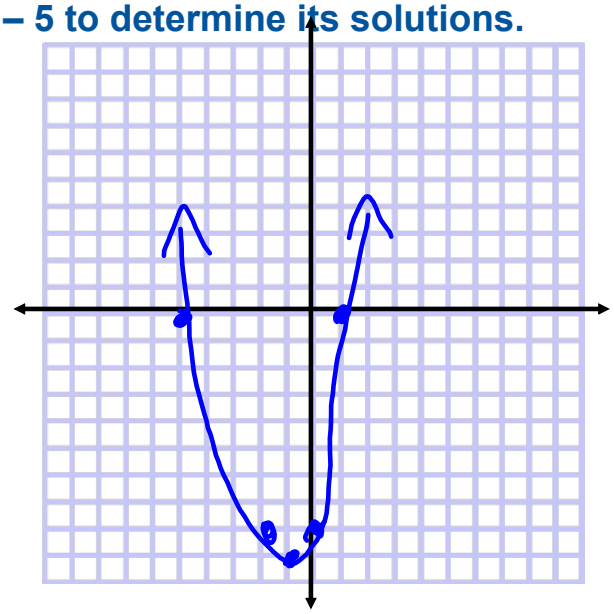
Stick Quiz

2 solutions

Graph the function $y = x^2 + 4x - 5$ to determine its solutions.

$x = 1$
$x = -5$



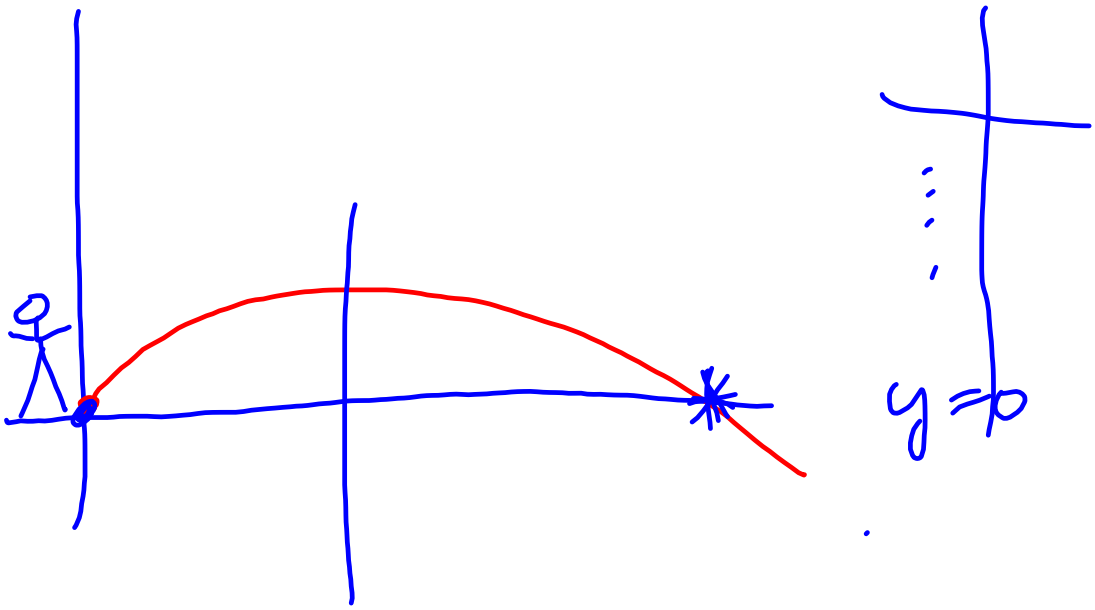
$h(t) = -16t^2 + 400$

Solving

$x = \frac{-0}{2(16)} = 0$

(0, 400)

x	y
0	400
1	
2	
3	
4	



Questions On Homework

I can... find zeros/roots/solutions of a quadratic by factoring.

Day 1 a = 1

For each problem below, ind 2 factors of the irst number, which will add to the second number.

1. 8 | 6

$1 \cdot 8$	$1+8=9$
$2 \cdot 4$	$2+4=6$
$-1 \cdot -8$	-9
$-2 \cdot -4$	-6

2. 10 | -7

$1 \cdot 10$	11
$-5 \cdot 2$	-7

3. -5 4

$5(-1)$

4. 12 7

$3 \cdot 4$

5. -12 4

$6 \cdot -2$

6. -12 1

$-3 \cdot 4$

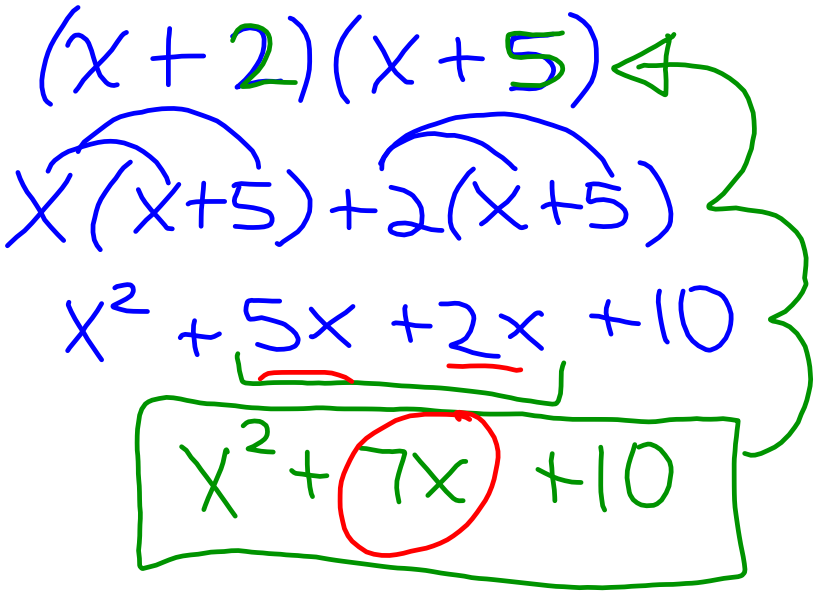
Standard Form of a Quadratic

$$ax^2 + bx + c = 0$$

we need factors that:

Mulitply to ac

Add to b



1. $1x^2 + 7x + 12$

$(x^2+3x)+(4x+12)$

$x(x+3)+4(x+3)$

$(x+3)(x+4)$

$1(12)=12$

a·c	b
12	7
1·12	
2·6	
3·4	3+4=7

WATCH Only

$7x=3x+4x$

2. $1x^2 + 3x + 2$

$(x^2+2x)+(1x+2)$

$x(x+2)+1(x+2)$

$(x+2)(x+1)$

a·c	b
2	3
1·2	

$3x=1x+2x$

You Try!!

Factor the following.

3. $x^2 - 12x + 27$

$27 \mid -12$

$-3 \cdot -9$

$(x^2 - 3x) + (-9x + 27)$

$x(x-3) - 9(x-3)$

$(x-3)(x-9)$

$x^2 - 9x - 3x + 27$

4. $x^2 - 10x + 16$

5. $x^2 + 3x - 18$

Negative??

WATCH Only

$-18 \mid 3$

6. $x^2 - x - 20$

-20	-1

You Try!!

7. $x^2 + 4x - 5$

8. $x^2 - 5x - 24$

Now Solve:

$x^2 + 2x = 15$

$-15 \quad -15$

$x^2 + 2x - 15 = 0$

$(x-3)(x+5) = 0$

$-15 \mid 2$

$-3 \cdot 5$

$x - 3 = 0$

$+3 \quad +3$

$x = 3$

$x + 5 = 0$

$-5 \quad -5$

$x = -5$

You Try!!

10. $n^2 + 4n = 32$

$n^2 + 4n - 32 = 0$

$(\quad)(\quad) = 0$

$= 0 \qquad = 0$

11. $h^2 - 17h = -60$