Pg. 585: 13-22 (a), 24-46 (e)

13 Y
14 Y
15 N
16 N
17 Y
18 N
19 Y
20 N
21 Y

22 Y
24 y^2-1
26 $9b^2-1$
28 $36-25n^2$
30 $a^2+16a+64$
32 $4y^2-16y+16$
34 $x^2-14x+49$
36 x^2-9

38 $n^2-8n+16$
40 $16n^2-24n+9$
42 $16x^2+40x+25$
44 $9y^2+48y+64$
46 $a^2-4ab+4b^2$

#26 $(3b-1)(3b+1)$

$3b(3b)+3b(1)=1(3b)-1(1)$

$9b^2+-1=9b^2-1$

10.4 Solving Quadratic Equations in Factor Form

April 24, 2007

factor form: [redacted]

factor form when it is written as a product (multiply) of 2 or more factors.

$$(x+3)(x+4) = x^2+7x+12$$

Product of factors

Polynomial

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

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

$x^2+7x+12$

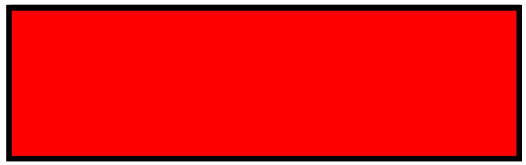
Zero-Product Property

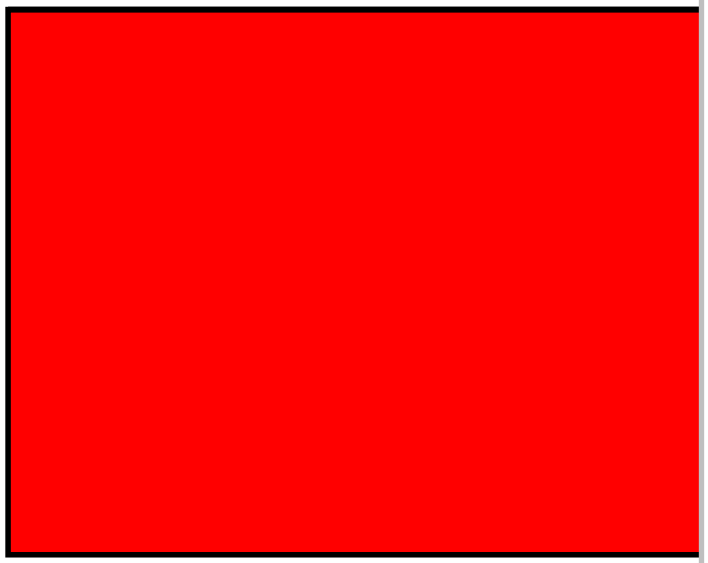
$a \cdot b = 0$

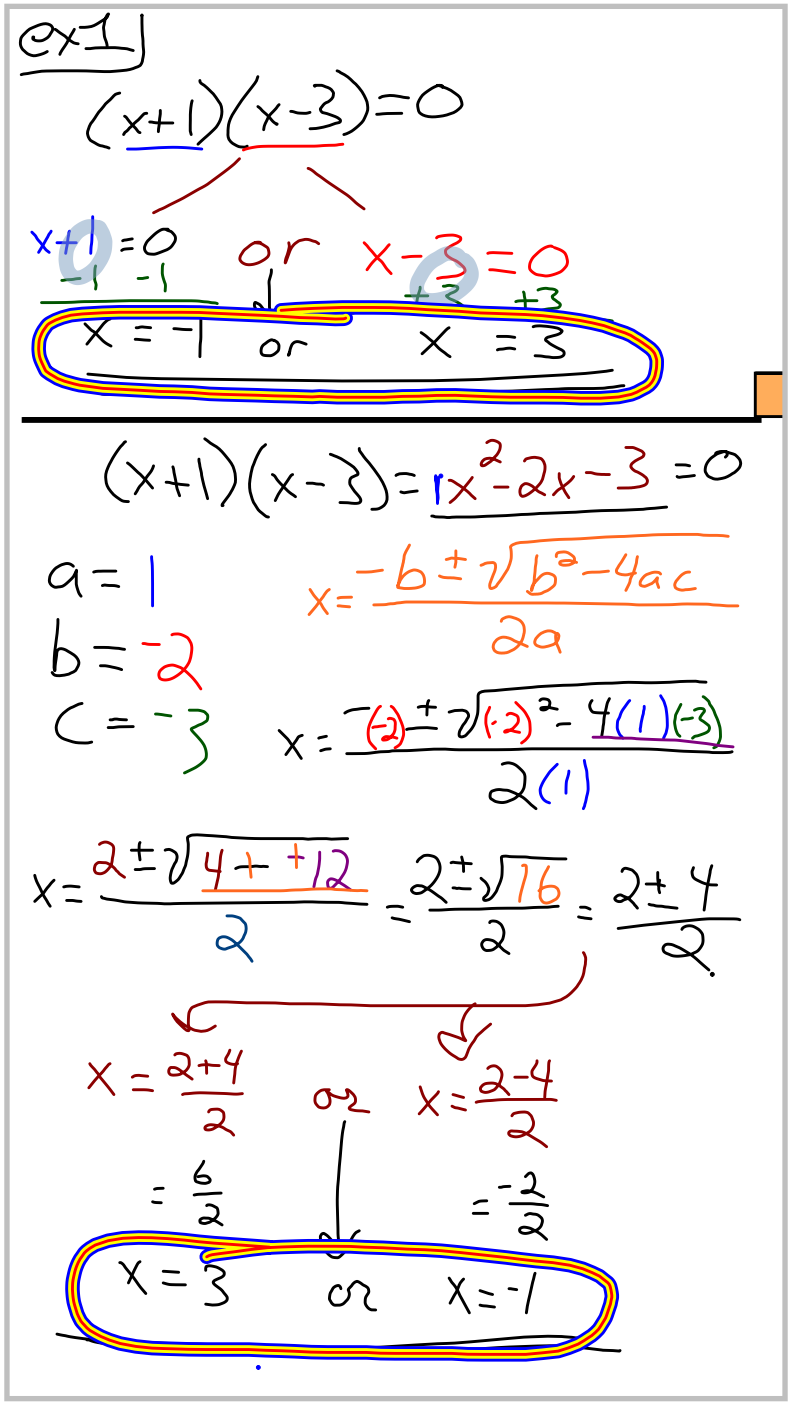
$\Updownarrow$

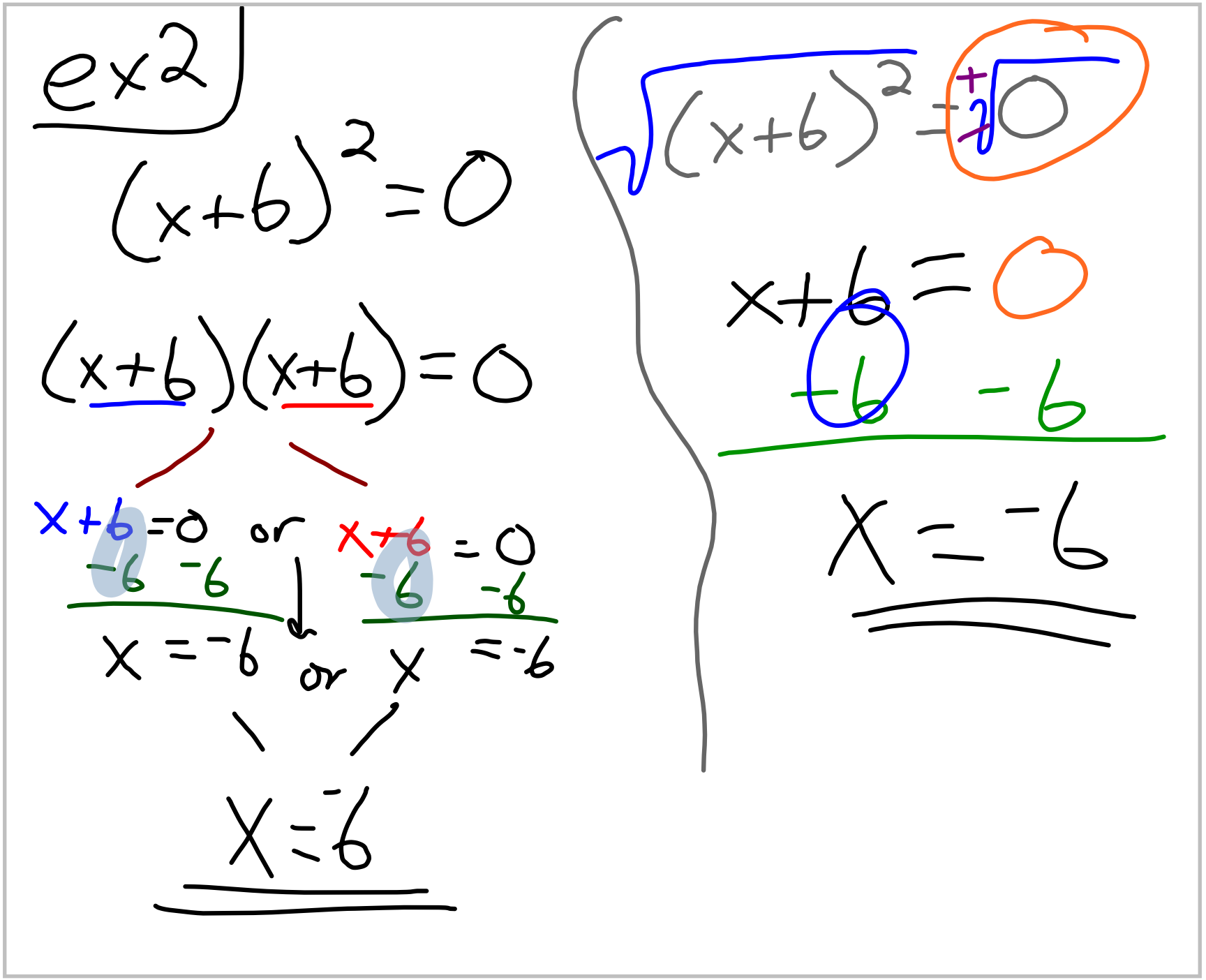
$a = 0$ or $b = 0$

when we Multiply 2 #'s that equal Zero, we know that At least One is equal to Zero!



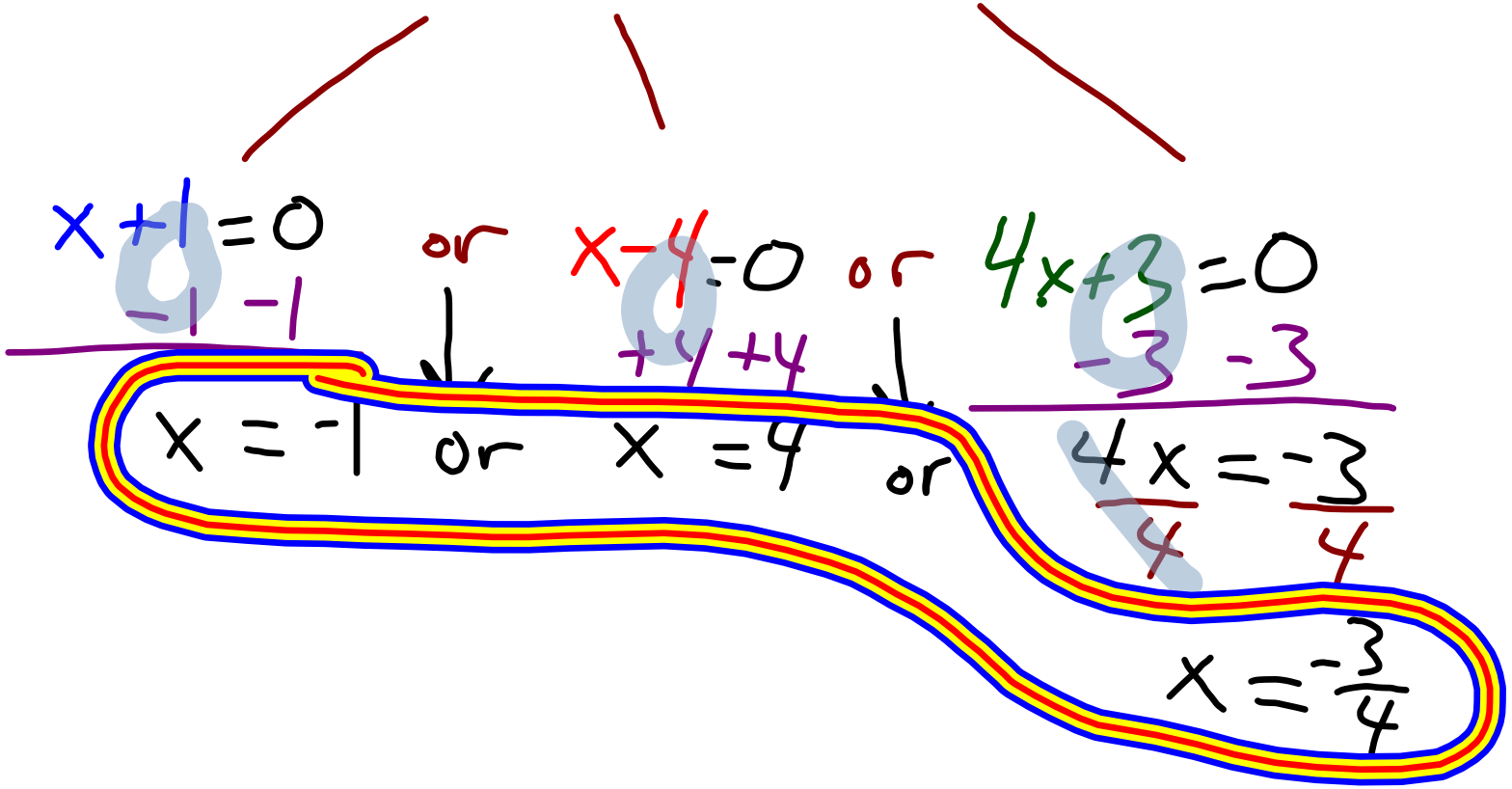



ex1)
(x+1)(x-3)=0
x+1=0 or x-3=0
-1 -1 +3 +3
x=-1 or x=3
(x+1)(x-3)=x²-2x-3=0
a=1
b=-2
c=-3
x=(-b±√(b²-4ac))/2a
x=(-(-2)±√((-2)²-4(1)(-3)))/2(1)
x=(2±√(4+12))/2=(2±√16)/2=(2±4)/2
x=(2+4)/2 or x=(2-4)/2
=6/2 =-2/2
x=3 or x=-1


ex2
$(x+6)^2=0$
$(x+6)(x+6)=0$
$x+6=0$ or $x+6=0$
$-6\ -6$
$x=-6$ or $x=-6$
$x=-6$
$\sqrt{(x+6)^2}=\pm\sqrt{0}$
$x+6=0$
$-6\ -6$
$x=-6$

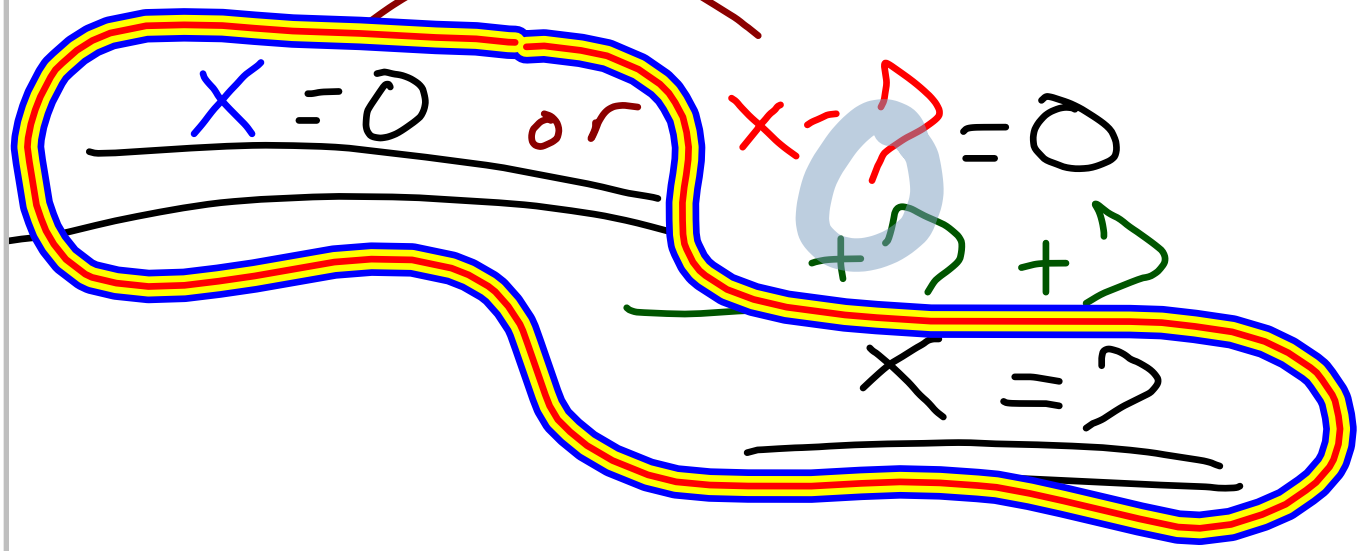
ex3)

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



ex4)

$x(x-7)=0$



O.T.L.

① Pg 591: 14-28 (all)
30-36 (even)