7.3 Solving Absolute Value Equations cont.

Read Ex2) on pg. 383 (Cookies)

Your Turn pg. 384

$|m-170|=6$

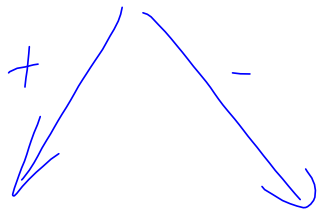
$+$ ↙ ↘ $-$

$m-170=6$ $\quad -(m-170)=6$

$m=176$ $\quad m-170=-6$

$m=164$

ex) Solve $|x^2 - 3x| = 2$.



$x^2 - 3x = 2$

$x^2 - 3x - 2 = 0$

Quadform

$x = \frac{3 \pm \sqrt{17}}{2}$

$-(x^2 - 3x) = 2$

$x^2 - 3x = -2$

$x^2 - 3x + 2 = 0$

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

$x = 2 \quad x = 1$

ex) Solve $|x-5| = x^2-8x+15$

$+$ $-$

$x-5 = x^2-8x+15$

$0 = x^2-9x+20$

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

$x=5$ ~~$x=4$~~

$-(x-5) = x^2-8x+15$

$-x+5 = x^2-8x+15$

$0 = x^2-7x+10$

$0 = (x-2)(x-5)$

$x=2$ $x=5$

pg. 389-391
#6, 7, 9-12, 22