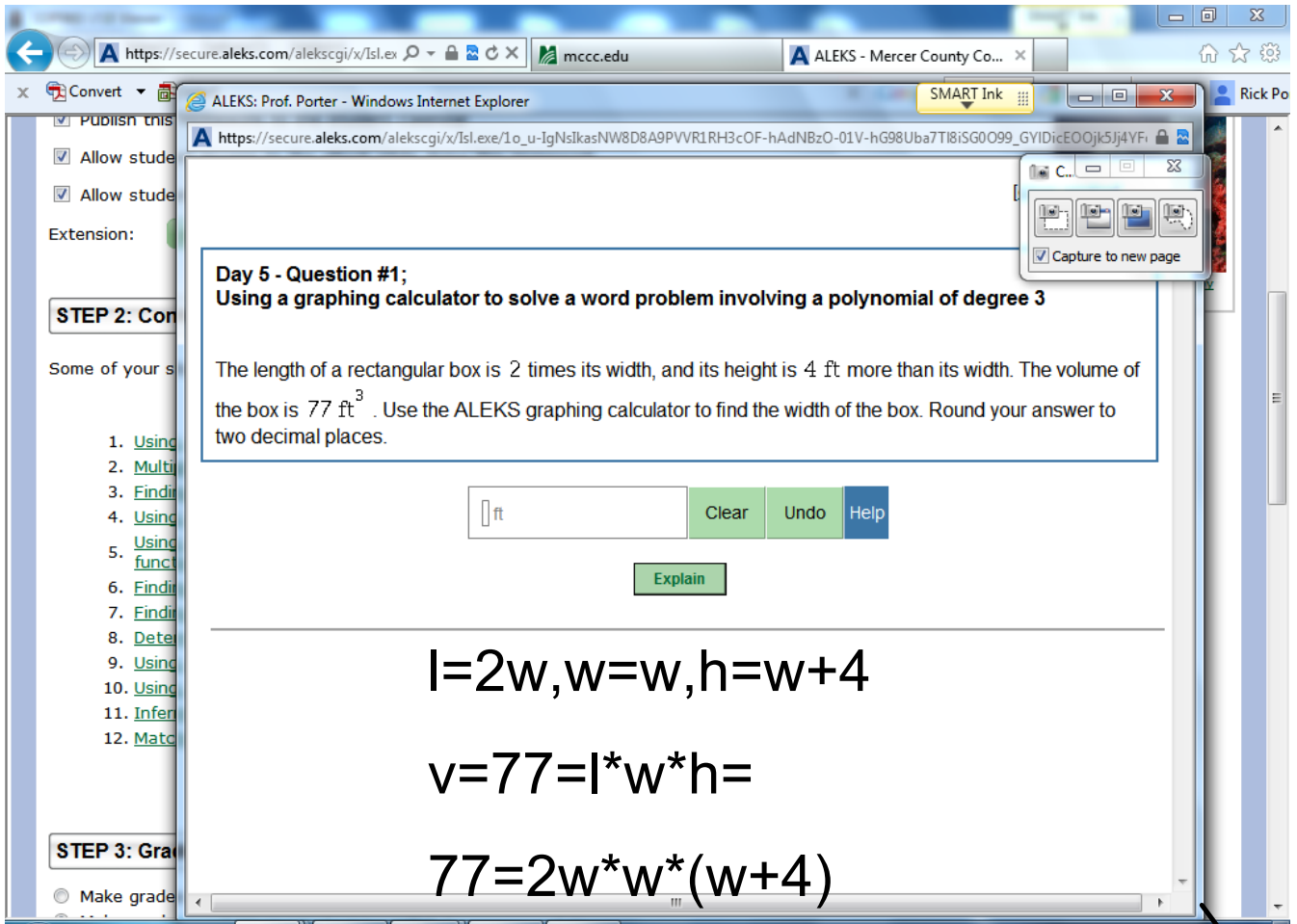


Mode

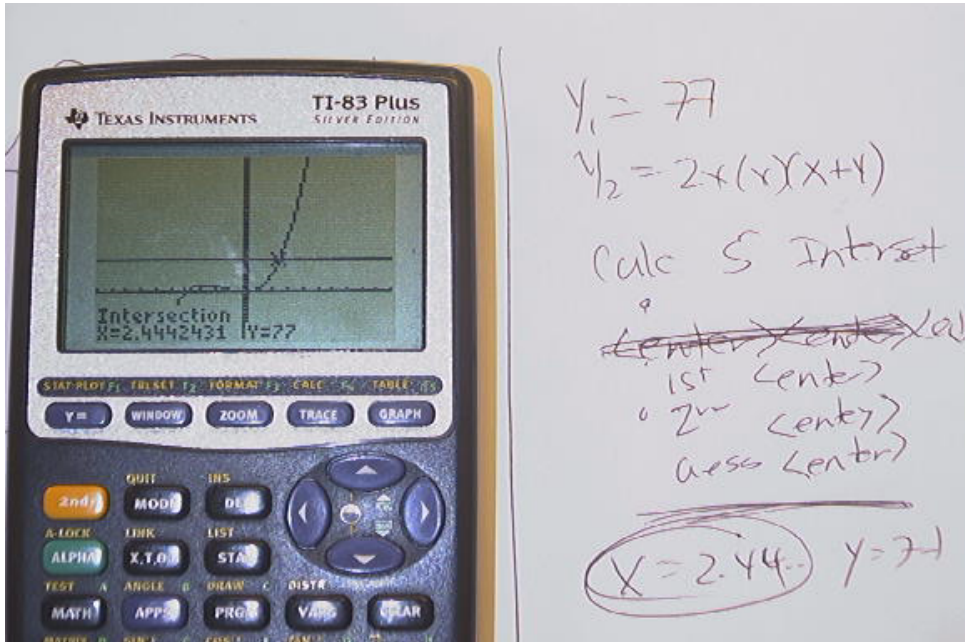


Day 5 - Question #1;
Using a graphing calculator to solve a word problem involving a polynomial of degree 3

The length of a rectangular box is 2 times its width, and its height is 4 ft more than its width. The volume of the box is 77 ft^3 . Use the ALEKS graphing calculator to find the width of the box. Round your answer to two decimal places.

ft

$$l=2w, w=w, h=w+4$$
$$v=77=l*w*h=$$
$$77=2w*w*(w+4)$$



ALEKS: Prof. Porter - Windows Internet Explorer

https://secure.aleks.com/alekscgi/x/IsI.exe/1o_u-IgNslkasNW8D8A9PVVR1RH3cOF-hAdNBzO-01V-hG98Uba7TI8tu-sHBubnlMD69EkOjk5!

[\[close window\]](#)

Day 5 - Question #3;
Finding a polynomial of a given degree with given zeros: Complex zeros

Find a polynomial $f(x)$ of degree 3 with real coefficients and the following zeros.

$-2, 2+i$

$2-i$


$(x+2)(x-2-i)(x-2+i)$

$f(x) = \square$

$(x+2)(x^2-4x+4-i^2)$

$(x+2)(x^2-4x+5)$

$x^3-4x^2+2x^2-8x+5x+10$


 Degree 6
 $0, 4$
 $0, 0, 0, 0$

Skill you should have

$(x+7)(x-3)$ find
 Factor zero: 3
 -7

$(2x+1) \Rightarrow$ zero: $-\frac{1}{2}$

$(\frac{3x}{7} + 9) \Rightarrow$
 $\frac{3x}{7} + 9 = 0$
 $\frac{3x}{7} = -9$
 $3x = -63$
 $x = -21$

$f(2x+1) \rightarrow$ make to
 $f(0) \rightarrow x = -\frac{1}{2}$

$y_1 = 77$
 $y_2 = 2x(x)(x+1)$
 Calc 5 Intersect
~~Center~~
 1st Center
 2nd Center
 3rd Center
 $(x=2.44, y=77)$

