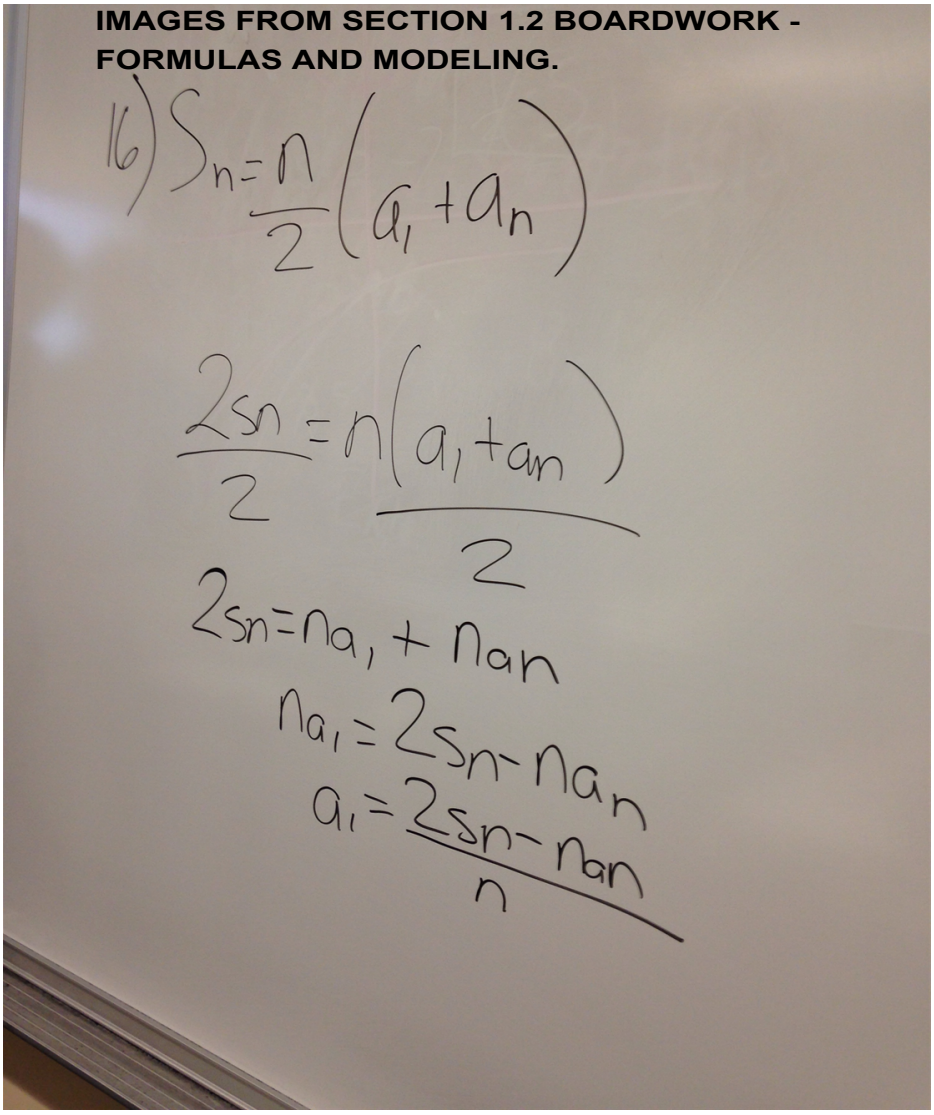
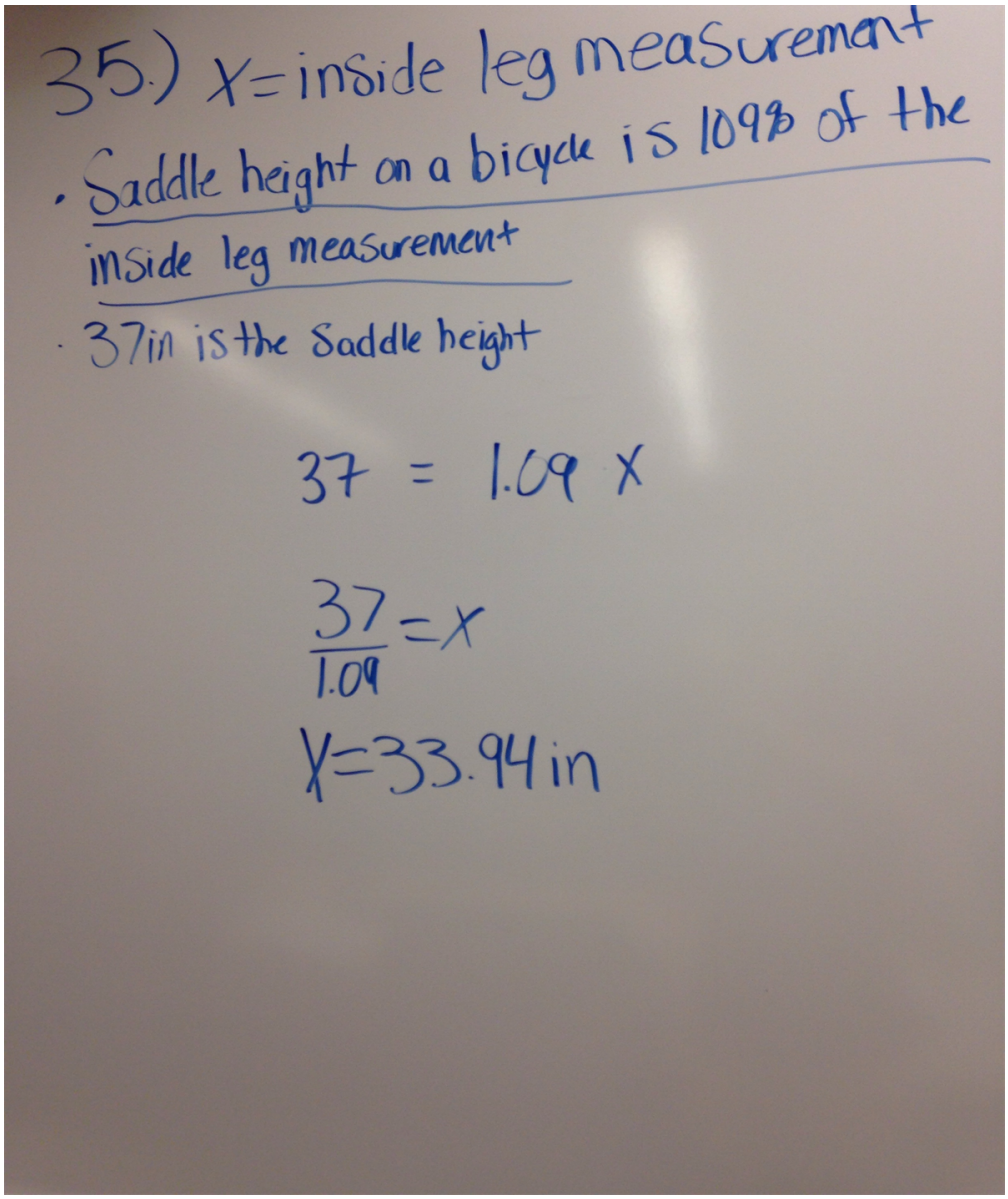
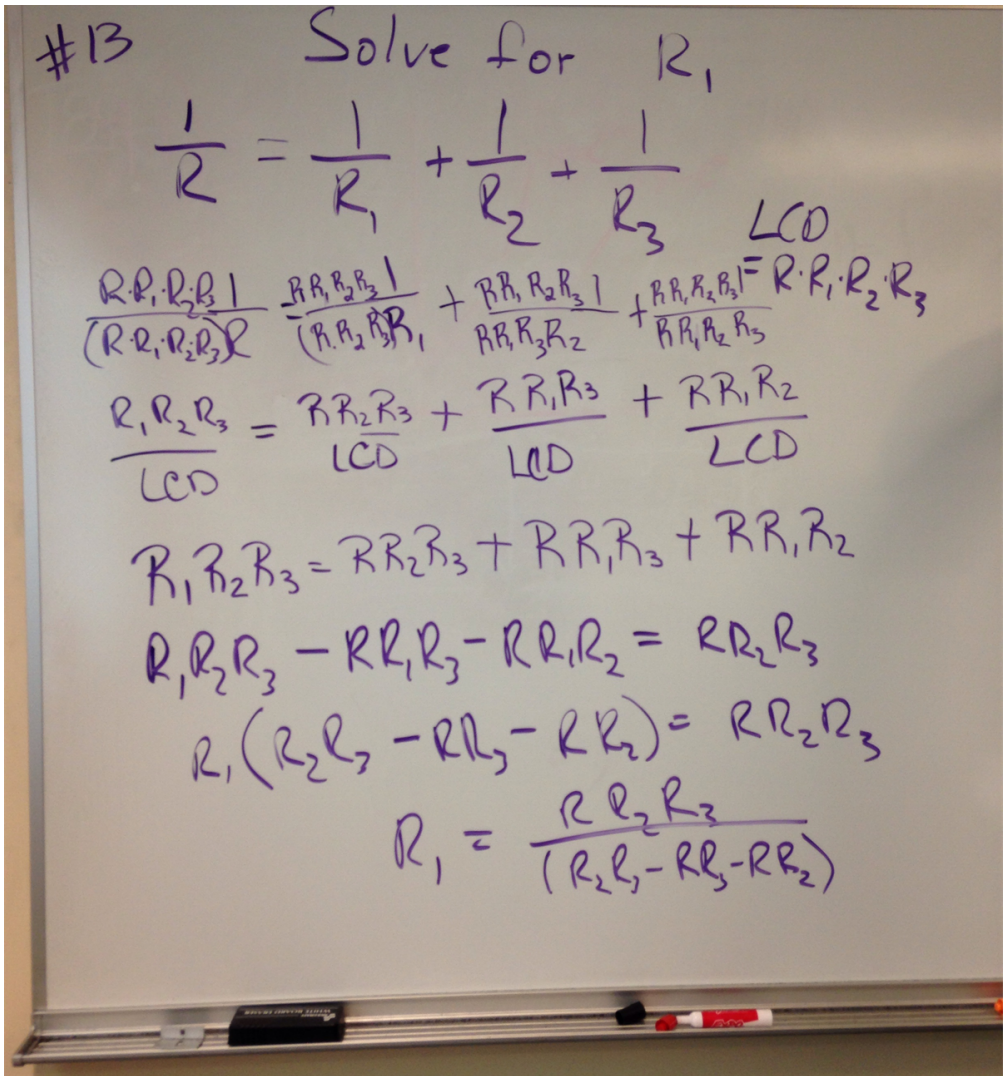
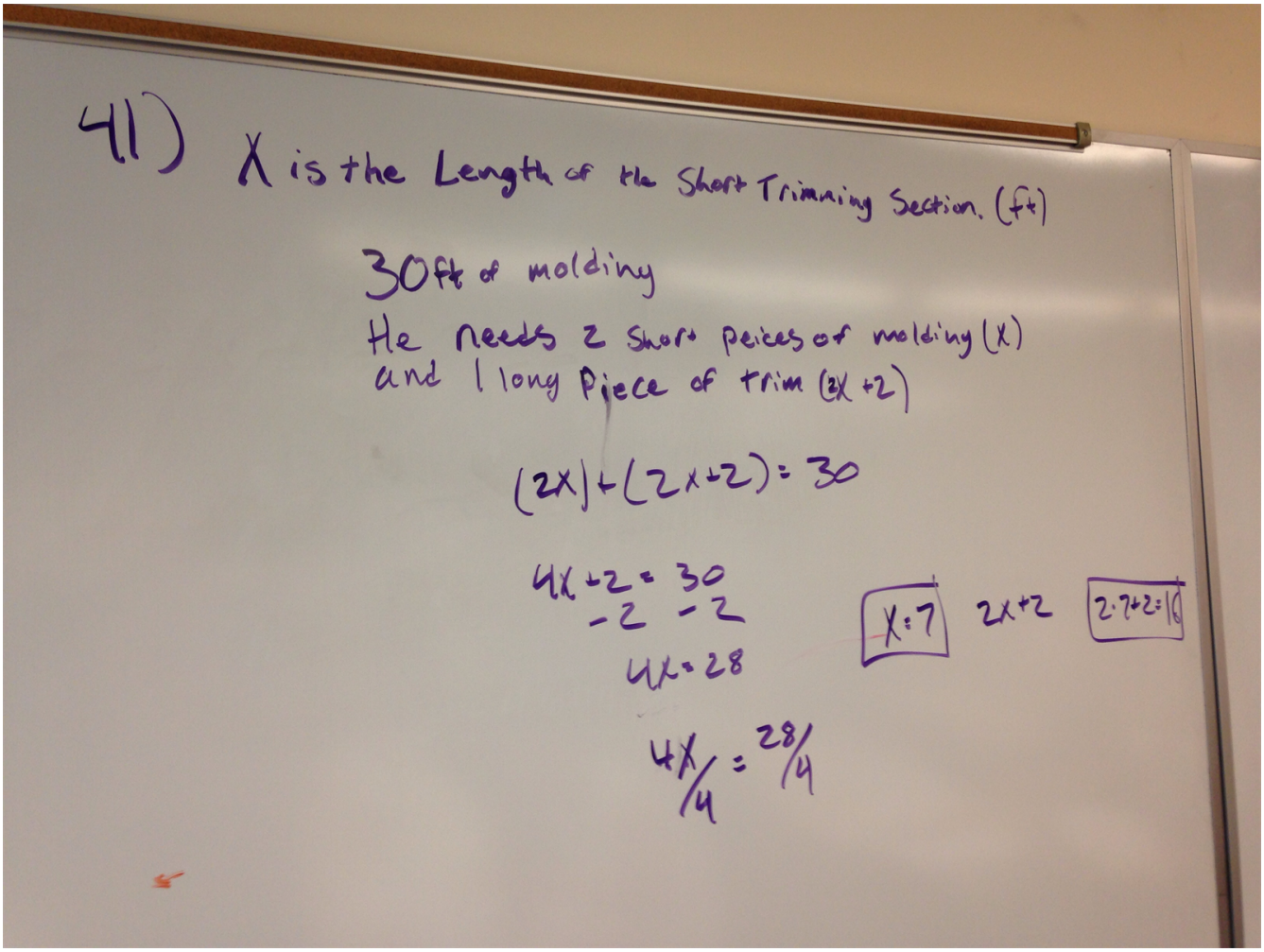
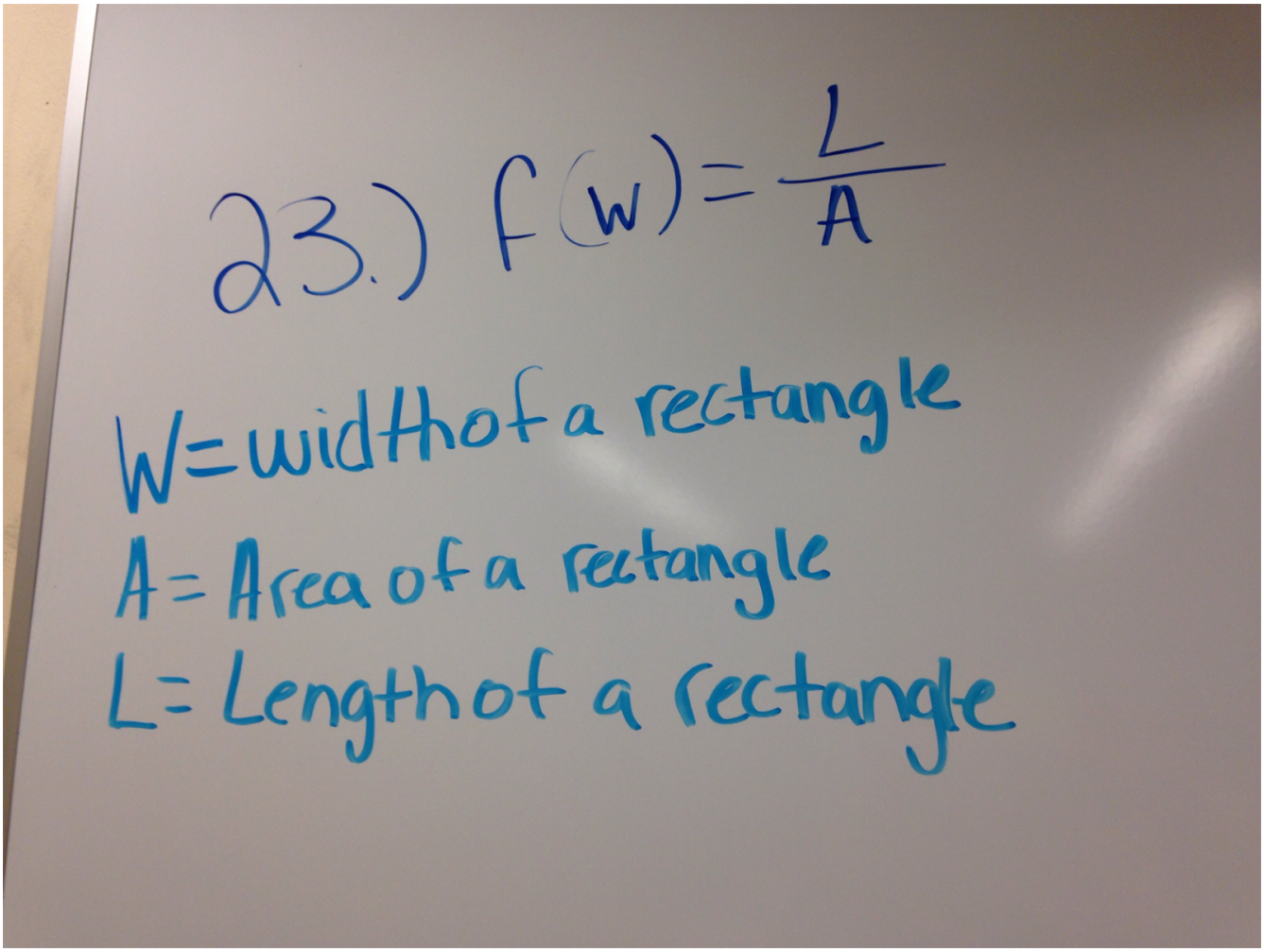
IMAGES FROM SECTION 1.2 BOARDWORK - FORMULAS AND MODELING.

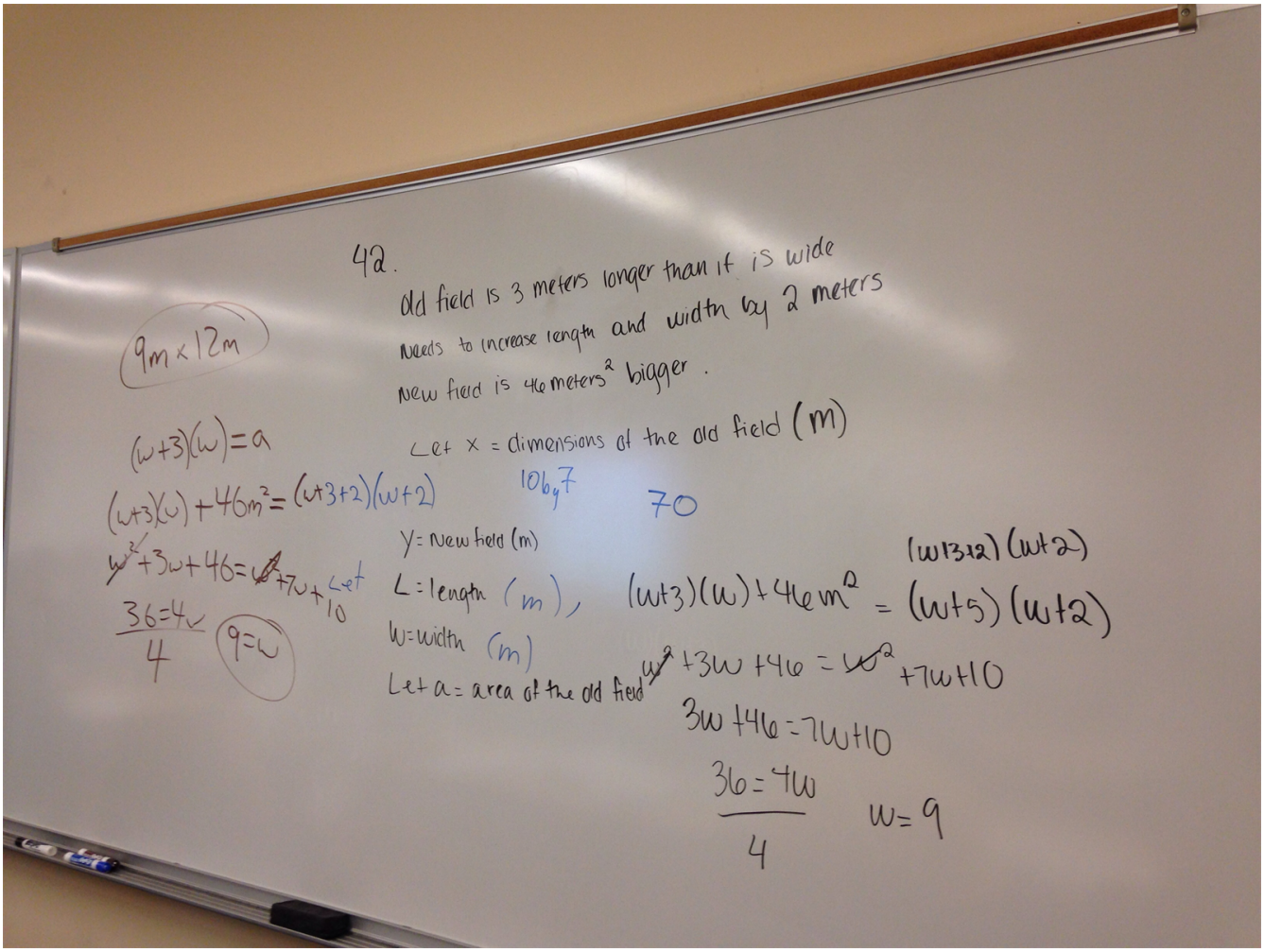


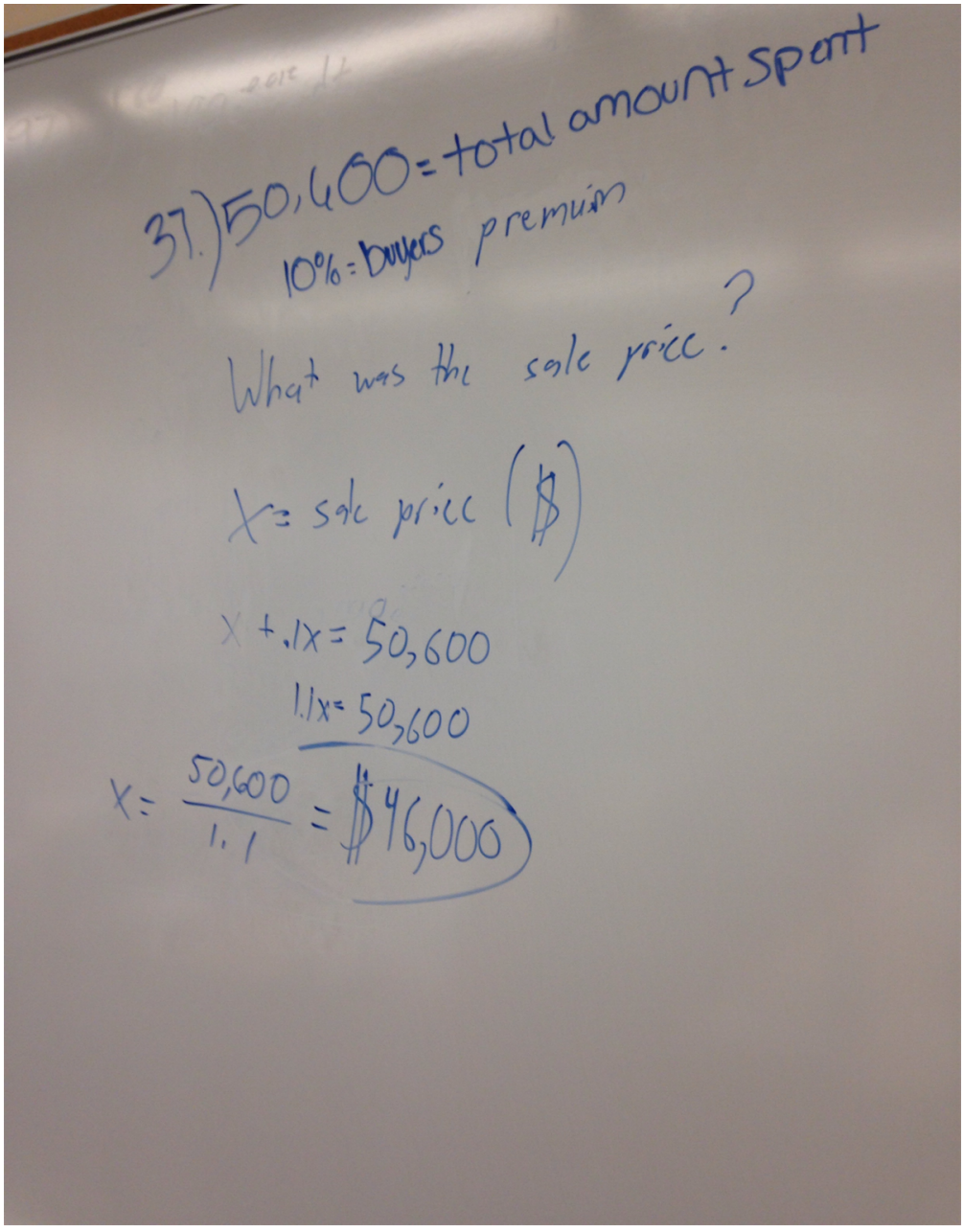

35.) X= inside leg measurement
. Saddle height on a bicycle is 109% of the inside leg measurement
. 37in is the saddle height
37 = 1.09 X
37/1.09 = X
X=33.94 in


#13 Solve for R_1
$\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$ LCD
$\frac{R_1R_2R_3}{LCD} = \frac{RR_2R_3}{LCD} + \frac{RR_1R_3}{LCD} + \frac{RR_1R_2}{LCD}$
$R_1R_2R_3 = RR_2R_3 + RR_1R_3 + RR_1R_2$
$R_1R_2R_3 - RR_1R_3 - RR_1R_2 = RR_2R_3$
$R_1(R_2R_3 - RR_3 - RR_2) = RR_2R_3$
$R_1 = \frac{RR_2R_3}{(R_2R_3 - RR_3 - RR_2)}$


41) X is the Length of the Short Trimming Section. (ft)
30ft of molding
He needs 2 short peices of molding (X)
and 1 long piece of trim (2X+2)
(2X)+(2X+2)=30
4X+2=30
-2 -2
4X=28
4X/4 = 28/4
X=7
2X+2
2·7+2=16


23.) $f(w) = \frac{L}{A}$
W = width of a rectangle
A = Area of a rectangle
L = Length of a rectangle


42.
Old field is 3 meters longer than it is wide
needs to increase length and width by 2 meters
New field is 46 meters² bigger.
Let x = dimensions of the old field (m)
9m x 12m
(w+3)(w)=a
(w+3)(w)+46m²=(w+3+2)(w+2)
10 by 7
70
y= New field (m)
L= length (m),
w= width (m)
Let a= area of the old field
(w+3)(w)+46m² = (w+5)(w+2)
(w+3+2)(w+2)
w²+3w+46 = w²+7w+10
3w+46=7w+10
36=4w
4
w=9
w²+3w+46=w²+7w+10
Let
36=4w
4
9=w


37.) 50,600 = total amount spent
10% = buyers premium
What was the sale price?
x = sale price ($)
x + .1x = 50,600
1.1x = 50,600
x = 50,600 / 1.1 = $46,000