

Ex. Simplify. (# 43 - 45)

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

↙

$$(x+2)^2$$

(not like in back  
of book!)

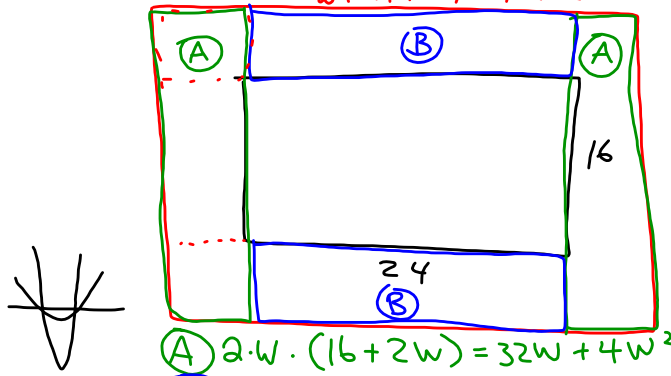
e-book: I must  
register you this  
year! so write on  
paper:

① your name

② user name you  
would like

and give to me. p#

#13 area = 276 in<sup>2</sup>  
width of frame = W



(A)  $2 \cdot W \cdot (16 + 2W) = 32W + 4W^2$

(B)  $2 \cdot 24 \cdot W = 48W$

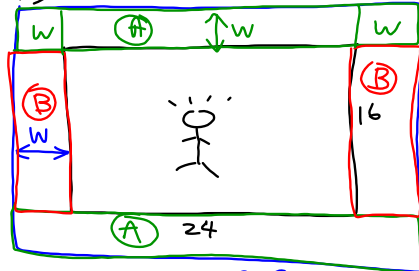
O.E. :  $4W^2 + 80W - 276 = 0$

$W^2 + 20W - 69 = 0$

$(W + 23)(W - 3) = 0$

$W = 3$

#13 w = width of frame



area of frame = 276

(A) + (B) = 276

$2 \cdot w(24 + 2w) + 2 \cdot 16w = 276$

$48w + 4w^2 + 32w = 276$

$4w^2 + 80w - 276 = 0$

$w^2 + 20w - 69 = 0$

$(w + 23)(w - 3) = 0$


$w = -23$

$w = 3$

#31 p. 250       $(3, 2)$        $(1, 7)$   
    $h$   $k$        $x_1$   $y_1$

$$y = a(x-h)^2 + k$$

$$y = \overset{1.25}{a}(x-3)^2 + 2$$


$$7 = a(1-3)^2 + 2$$

$$7 = 4a + 2$$

$$4a = 5$$

$$a = \frac{5}{4} = 1.25$$