P. 366 Solving Problems Using Equations Doc 4

1. Given: the sum of 2 #s is 35.

Find: the 2 #s

Let x = the first number.

then let 35 - x = the 2nd number

4. Given: the length and width of a rectangle total 36cm

Find: the dimensions

Let x = the width

Then let $36 - x$ = the length

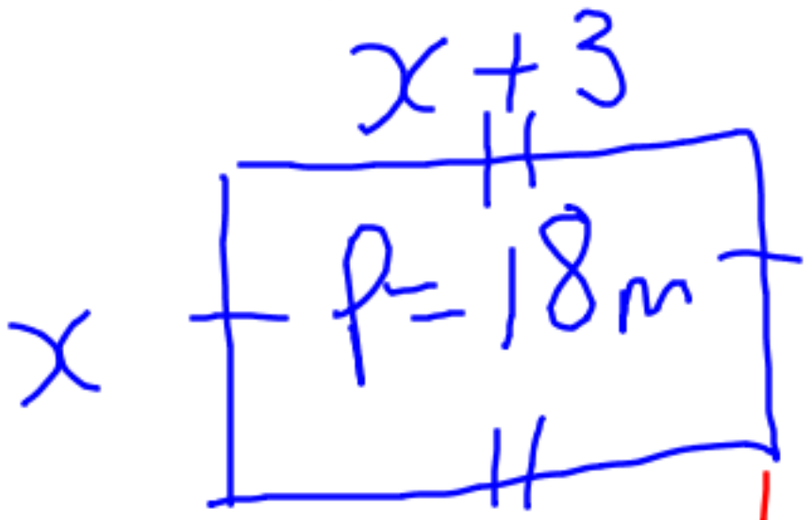
8. Given: 246 coins in quarters + dimes

Find: how many of each

Let x = the dimes

Then let $246 - x$ = the quarters

11. Given:



Find: the dimensions

Let x = the width

Then let x+3 = the length

$P = 2w + 2l$

$18 = 2x + 2(x+3)$

$18 = 2x + 2x + 6$

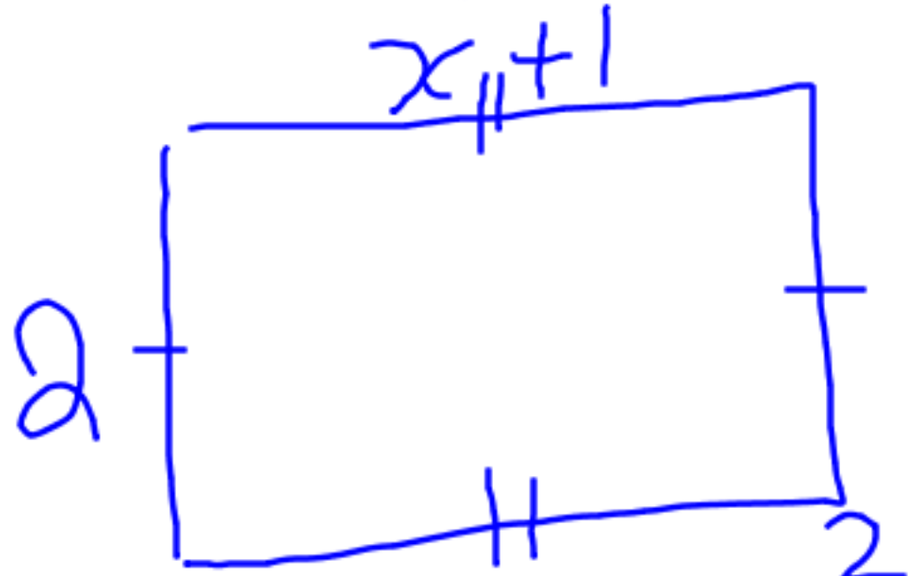
$18 = 4x + 6$

$\frac{12}{4} = \frac{4x}{4}$

$x = 3$

∴ the width is 3m and the length is 6m

B. Given



$A = L \times W$

$12 = 2(x+1)$

$12 = 2x + 2$

$\frac{10}{2} = \frac{2x}{2}$

$x = 5$

Let $x+1$ = the length

Find: the dimensions

∴ the length is 6m.

17. Given: the sum of 2 #s is 46. One number is 12 more than the other.

Find: the numbers.

Let x = the smaller number

then let $x+12$ = the larger number

$x + (x+12) = 46$

$2x + 12 = 46$

$2x = 34$

$x = 17$

$\therefore$ the first number is 17 and the second number is 29.

20. Given: the sum of 3 consecutive whole numbers is 105.

Find: the numbers

Let x = the first number

then let $x+1$ = the 2nd number

and let $x+2$ = the 3rd number

$x + x+1 + x+2 = 105$ ∴ the numbers are 33, 34, 35.

$-3 \quad -3$

$3x + 3 = 105 - 3$

$3x = 102$

$x = 34$

check: 33 + 34 + 35 = 102

Homework:

p. 366 thru 22

+ hand-out