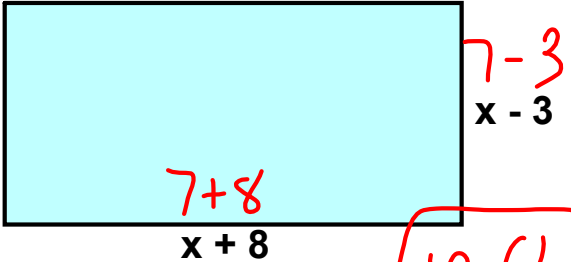


DO NOW: Given the diagram below, find the dimensions of the rectangle if the area is 60 square feet.

$A = l w$
 $60 = (x+8)(x-3)$
 $60 = x^2 + 5x - 24$
 -60



$0 = x^2 + 5x - 84$
 $0 = (x-7)(x+12)$
 $x-7=0$ $x+12=0$
 $x=7$ $x=-12$
reject

$-84 \mid 5$
 $-7 \cdot 12 \mid -7+12$

15 ft
by
4 ft

Apr 8-3:48 PM

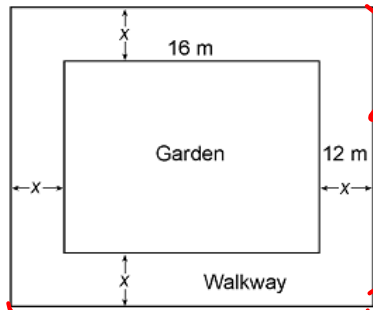
Homework Answers

Workbook Page 476 # 1 - 4 & Page 477 # 5- 7

- | | |
|------|----------------------|
| 1) 0 | 5) no real solutions |
| 2) 2 | 6) 2 |
| 3) 1 | 7) 1 |
| 4) 0 | |

Mar 26-6:55 AM

2. A rectangular garden measuring 12 meters by 16 meters is to have a walkway installed around it with a width of x meters, as shown in the diagram below. Together, the walkway and garden have an area of 396 square meters.



$$(12 + 2x)(16 + 2x) = 396$$

Part A $16 + 2x$

Write an equation that can be used to find x , the width of the walkway.

Apr 8-3:58 PM

Part B

Describe how your equation from Part A models the situation

I know Area of a rectangle is length times width. The walkway goes all the way around the garden so I needed to add $2x$ to both the length and the width. My new dimensions became $2x + 12$ and $2x + 16$. Once I had my new dimensions I was able to substitute into the Area formula.

Apr 7-6:59 AM