

p. 367

37. Picture A picture is 5 cm longer than it is wide. The perimeter of the picture is 90 cm.

a) What is the width of the picture?

b) The picture is surrounded by a 6-cm wide border. What are the outside dimensions of the border?

38. Garden A garden is 20 m by 25 m. It is surrounded by a walkway. The outside perimeter of the walkway is 114 m. What is the width of the walkway? Explain and justify the steps in your solution.

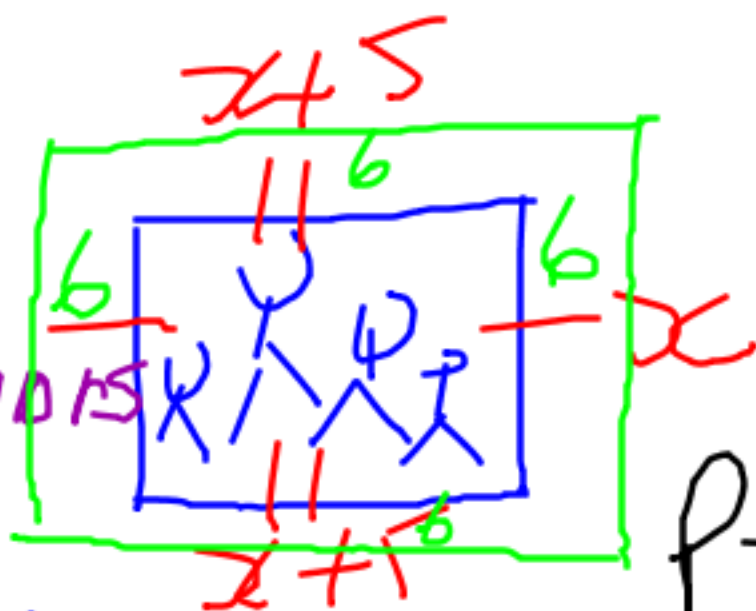
Dec 16

Given

Find:
the dimensions

$$P = 90 \text{ cm}$$

\therefore the width is 20 cm and the length is 25 cm.



Let x = the width
Then let $x+5$ = the length

$$P = 2L + 2W$$

$$90 = 2(x+5) + 2(x)$$

$$90 = 2x + 10 + 2x$$

$$90 = 4x + 10$$

$$80 = 4x$$

$$x = 20$$

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38. Garden A garden is 20 m by 25 m. It is surrounded by a walkway. The outside perimeter of the walkway is 114 m. What is the width of the walkway? Explain and justify the steps in your solution.

Find: the width of the walkway.

Outside Perimeter = 114 m Let x = width of walkway

Outside length: $x + 25 + x = 2x + 25$

Outside width: $x + 20 + x = 2x + 20$

$$P = 2L + 2W$$

$$114 = 2(2x + 25) + 2(2x + 20)$$

1. Finish DST Sheet

2. p. 367 # 39

3. Are you ready for quest
VV
per 5 work

D

S

T

Airforce

10x

x

10

Jet $q(x+25)$ $x+25$

9

Let x = the AF plane's speed