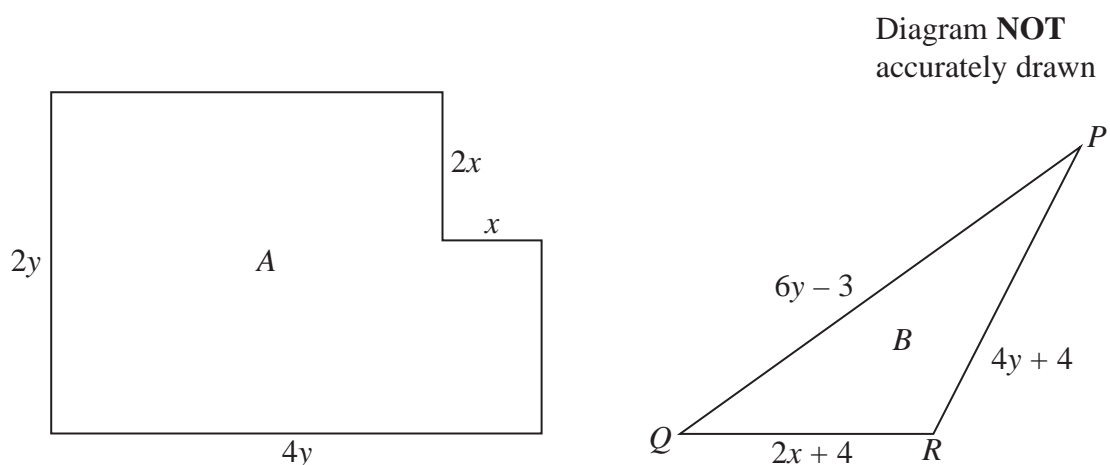


- 9 Figure 2 shows two shapes  $A$  and  $B$ .  
All the lengths are in metres.



**Figure 2**

The corners of shape  $A$  are all right angles.

The area of shape  $A$  is  $400\text{ m}^2$

Shape  $B$  is triangle  $PQR$ .

The perimeter of shape  $A$  is equal to the perimeter of shape  $B$ .

- (a) Show that  $4y^2 - x^2 = 200$  and that  $2y = 2x + 5$

(3)

- (b) Find the value of  $x$  and the value of  $y$ .

Show clear algebraic working.

(5)

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**Question 9 continued**

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**(Total for Question 9 is 8 marks)**

