

Answer all TEN questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1

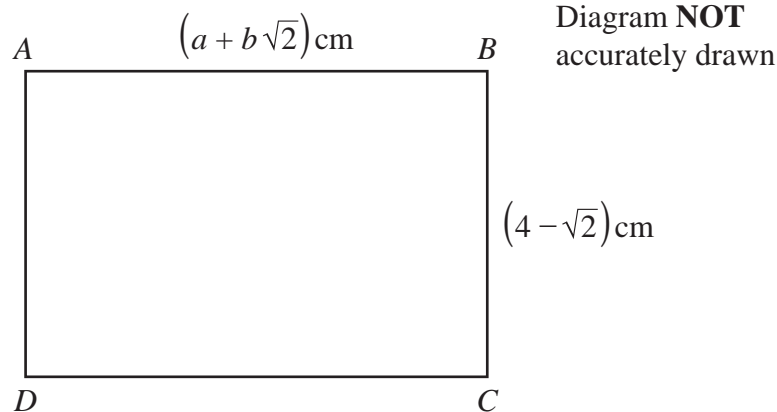


Figure 1

Figure 1 shows the rectangle $ABCD$.

$AD = BC = (4 - \sqrt{2})$ cm and $AB = DC = (a + b\sqrt{2})$ cm where a and b are integers.

The area of the rectangle is $(10 + \sqrt{2})$ cm²

Find the value of a and the value of b

Show your working clearly.

(4)

(Total for Question 1 is 4 marks)

