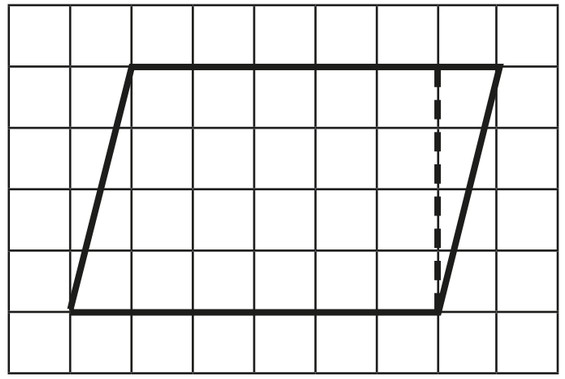
Area of a parallelogram

1 On a piece of squared paper, copy this parallelogram and cut it out.



a) Create a rectangle by cutting off the right-angled triangle and moving it.

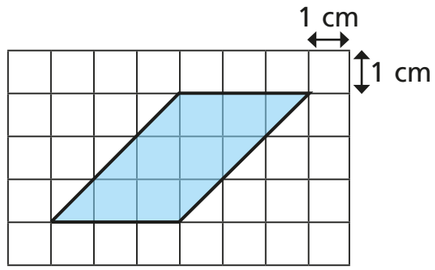
b) Complete the sentences.

The area of the rectangle is 24 squares.

The area of the parallelogram is 24 squares.

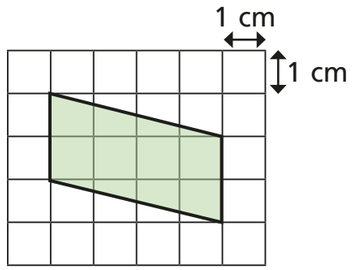
2 Calculate the areas of the parallelograms.

a)



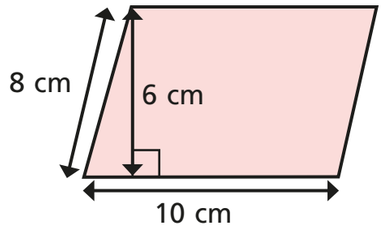
area = 9 cm²

b)



area = 8 cm²

3 Huan is finding the area of the parallelogram.



$10 \times 8 = 80$ cm²

a) What mistake has Huan made?

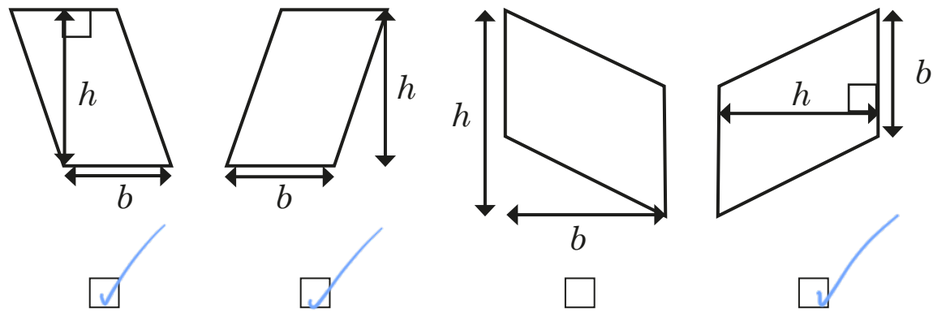
He hasn't used the perpendicular height.

b) What is the correct answer?

area = 60 cm²

4 Esther has labelled the bases and heights for four parallelograms.

Three are correct; one is incorrect. Tick the shapes that have been correctly labelled.



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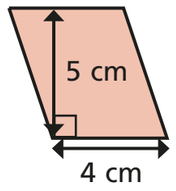
Explain to a partner why one is incorrect.

5 Calculate the areas of the parallelograms.

a)



area = 20 cm²

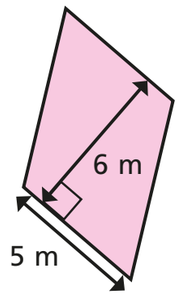
b)

area = 10 cm²

c)

area = 90 mm²

d)



area = 30 m²

e)

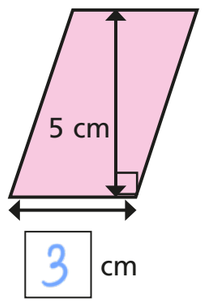
area = 18 m²

f)

area = 40 cm²

6 Find the missing lengths.

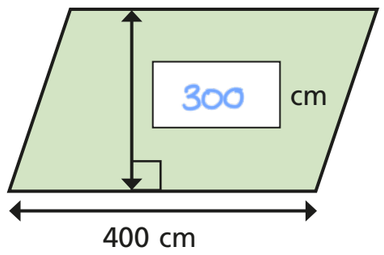
a)



3 cm

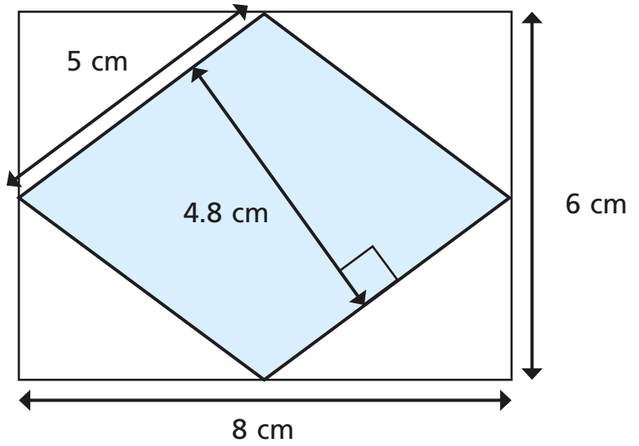
area = 15 cm²

b)



area = 12 m²

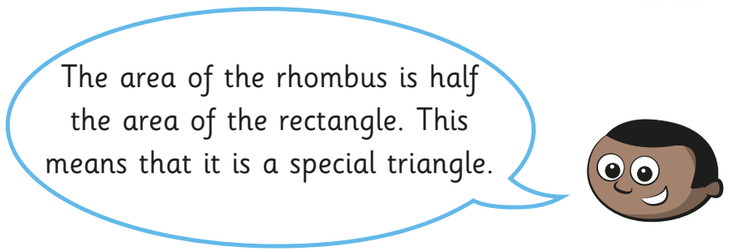
7 Here is a rhombus inside a rectangle.



a) Calculate the area of the rhombus.

area = 24 cm²

b)



Explain to a partner why Mo is wrong.