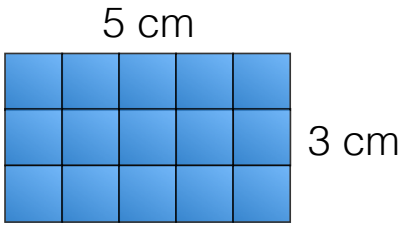
G16a Area of Rectangles

Alpha Exercise

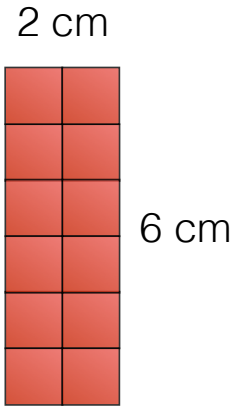
Find the area of each of the following rectangles:

(1)

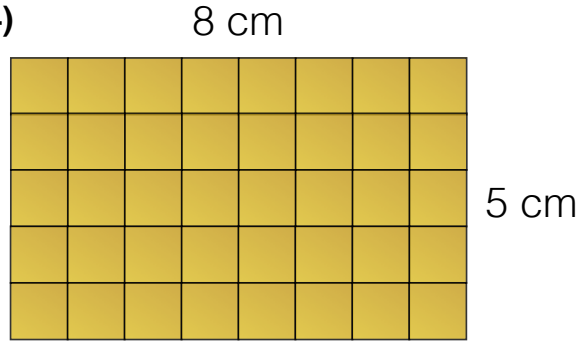


(2)

(3)



(4)



How many 2 x 1 cm tiles can you fit into each of these four rectangles?

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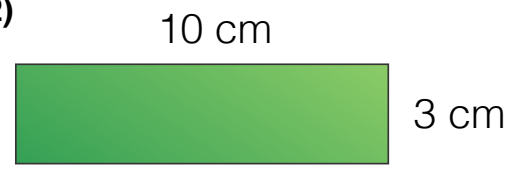
β

Beta Exercise

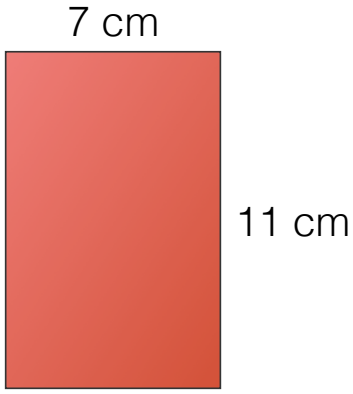
Find the area of each of the following rectangles:

(1)

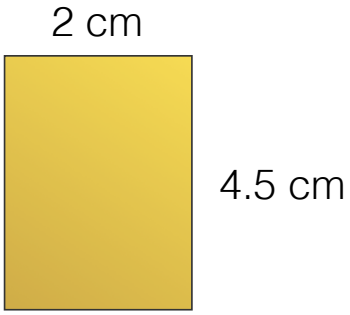
(2)



(3)



(4)



How many 2 x 1 cm tiles can you fit into each of these four rectangles?

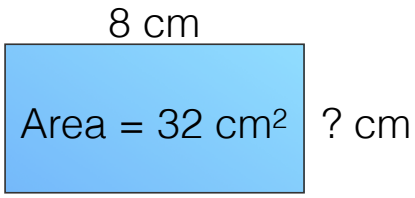
G16a Area of Rectangles

γ

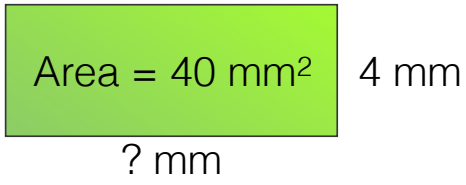
Gamma Exercise

Find the missing numbers:

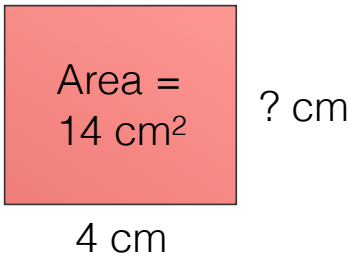
(1)



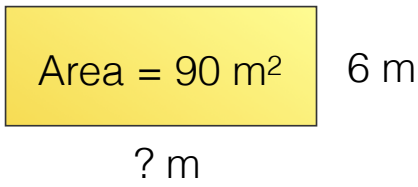
(2)



(3)



(4)



Sketch three different rectangles with an area of 24 cm². Label the lengths and widths of all three rectangles.

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Explain the mistake

Dannii says that the area of this rectangle is 1 cm^2 because you can only fit one whole 1 cm x 1 cm square into the rectangle.

Dannii is wrong about the area. Explain why.

Exam-style question 1

a) What is the area of a rectangular patio measuring 25 feet wide and 30 feet long?

b) How many 1 foot x 1 foot slabs are needed to the patio?

c) If each slab costs £5, how much would it cost to buy enough to tile the whole patio?

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Exam-style question 2

a) What is the area, in cm^2, of a 1 m x 1 m square?

b) What is the area, in cm^2, of a 50 cm x 50 cm square?

c) How many 50 cm x 50 cm tiles are needed to cover a 1 m^2 area?

d) How many 50 cm x 50 cm tiles are needed to cover a rectangular room measuring 2 m x 4 m?

Challenge

You have 120 metres of fencing. You want to use this fencing to enclose a rectangle or square of the largest possible area. What are the dimensions of the shape you enclose?