

MONDAY 18TH MAY
2020

THIS WEEK, WE ARE
CONTINUING TO LEARN
ABOUT AREA.

PRACTISE DIVISION FACTS:

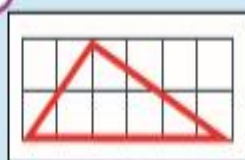
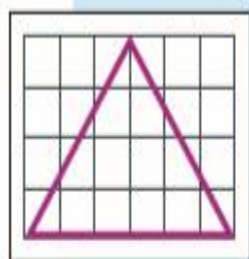
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MATHS-GAMES/HIT-THE-BUTTON](https://www.topmarks.co.uk/maths-games/hit-the-button)



Area of a triangle 1

Discover

I wonder what the area of the triangle is?



Jamie

Andy

- 1 a) Work out the area of Andy's triangle.
- b) What is the area of Jamie's triangle?

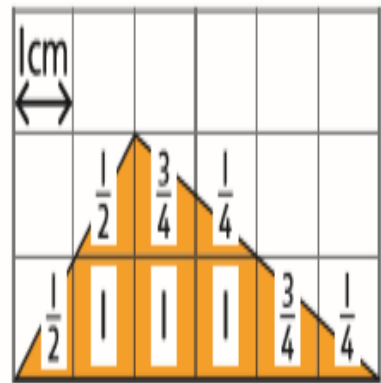
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a) Method 1



I estimated the area by counting the squares.

$$\begin{aligned} &1 \times 3 + \frac{3}{4} \times 2 + \frac{1}{2} \times 2 + \frac{1}{4} \times 2 \\ &= 3 + 1\frac{1}{2} + 1 + \frac{1}{2} \\ &= 6 \text{ squares or } 6 \text{ cm}^2 \end{aligned}$$

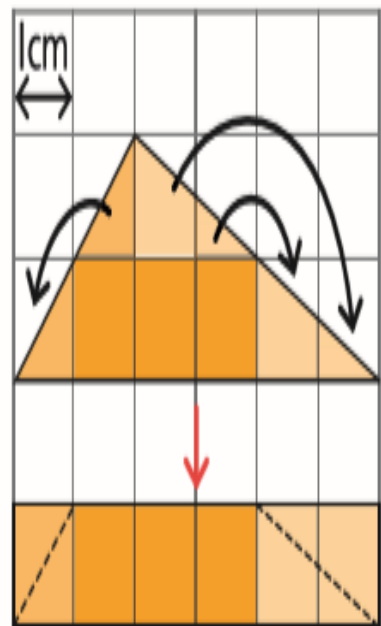


Method 2

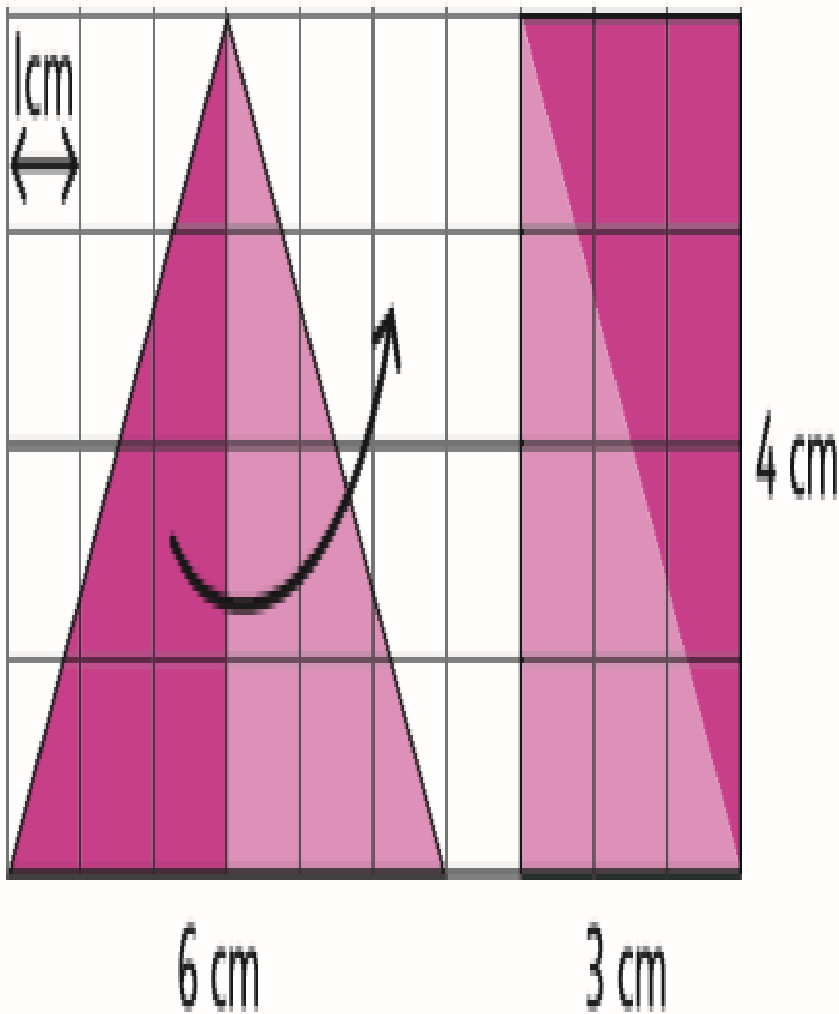
Change the triangle to a rectangle by moving some part squares.

The area of the triangle is the same as the area of the rectangle: $6 \times 1 = 6 \text{ cm}^2$.

The area of Andy's triangle is 6 cm^2 .



b) Change Jamie's triangle to a rectangle by splitting it exactly in half and moving one triangle to the other side.

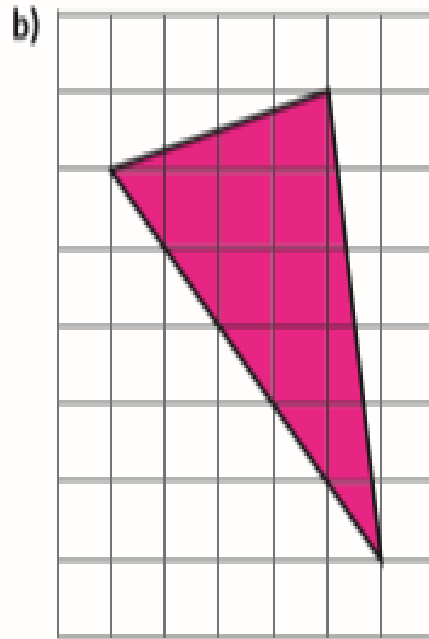
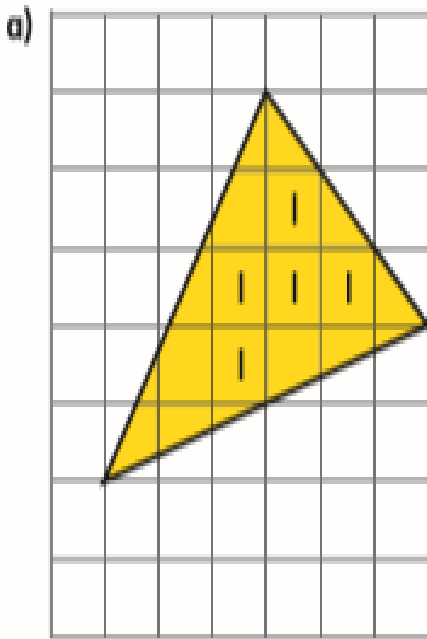


Area of the rectangle = $4 \text{ cm} \times 3 \text{ cm} = 12 \text{ cm}^2$.

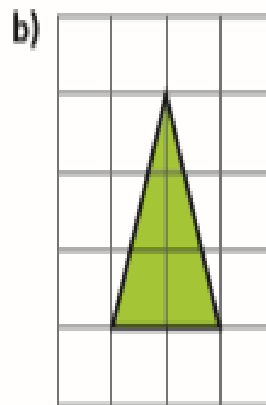
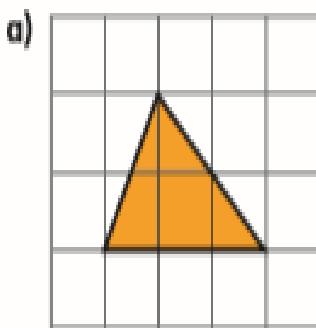
The area of Jamie's triangle is 12 cm^2 .

Think together

1 Estimate the areas of the triangles below.



2 Find the areas of the following triangles by making rectangles.



CHALLENGE

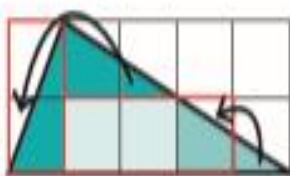
- 3 Olivia estimates the area of the triangle by counting the squares. She makes a table to record her results.

Complete Olivia's table.

Whole squares	
Almost-whole squares	
Half squares	
Quarter squares	
Less than a quarter squares	



Andy works out the area by changing it to two rectangles.



Use both methods to work out the area of the triangle.

I wonder which method is more accurate.



ANSWERS

ANSWERS

Question 1 a): 5 whole squares, 3 almost-whole squares, 8 half squares, 4 small part squares.
 $5 + 3 + 4 = 12$. The area of the triangle is approximately 12 squares.

Question 1 b): 6 whole squares, 3 almost-whole squares, 8 half squares, 3 small part squares.
 $6 + 3 + 4 = 13$. The area of the triangle is approximately 13 squares.

Question 2 a): $3 \times 1 = 3$ squares

Question 2 b): $1 \times 3 = 3$ squares

Question 3:

Whole squares	1
Almost-whole squares	3
Half squares	$3 = 1\frac{1}{2}$
Quarter squares	$2 = \frac{1}{2}$
Less than a quarter squares	3

Area of rectangle = 6 squares (Olivia's method); 5 squares (Andy's method)