

25.01.21



IALT: explore what area is

$$6 \times 2 \times 2 =$$

$$367 + 74 =$$

$$497 - 125 =$$

$$3 \times 8 \times 9 \times 5 =$$

$$67 \times 3 =$$

Challenge: Simplify this.

$$\frac{5}{10} + \frac{3}{10}$$

<https://www.topmarks.co.uk/maths-games/daily10>

ANSWERS

25.01.21



IALT: explore what area is

$$6 \times 2 \times 2 = 24$$

$$367 + 74 = 441$$

$$497 - 125 = 372$$

$$3 \times 8 \times 9 \times 5 = 1080$$

$$67 \times 3 = 201$$

Challenge: Simplify this.

$$\frac{5}{10} + \frac{3}{10}$$

$$= \frac{4}{5}$$

<https://www.topmarks.co.uk/maths-games/daily10>

Daily Counting

11

9

7



IALT: explore what area is

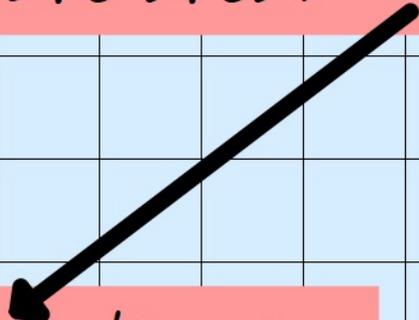
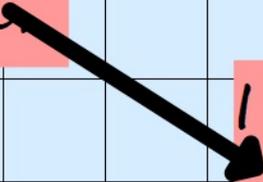
I can define area.

I can understand how we measure area.

I can begin to explore area.

I can investigate area

I understand area



What vocab do we need to know to investigate area?

Vocab:

Area

Rectilinear

Surface

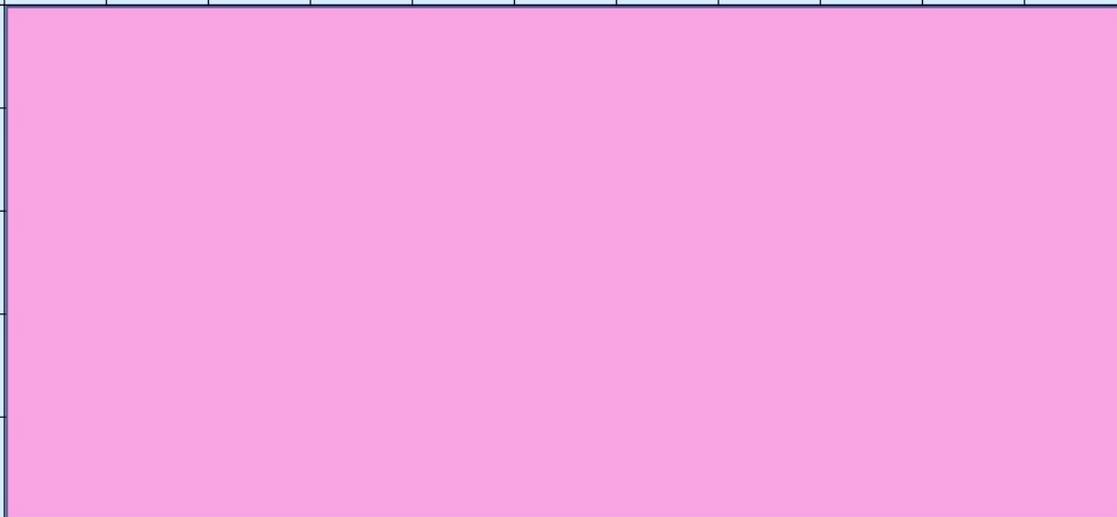
Area: The surface inside the shape

Rectilinear: a rectilinear figure can be defined as a plane figure or shape all of whose sides meet at right angles.

Surface: outside or inside layer of a shape

What shape is this?

Can you outline the perimeter?

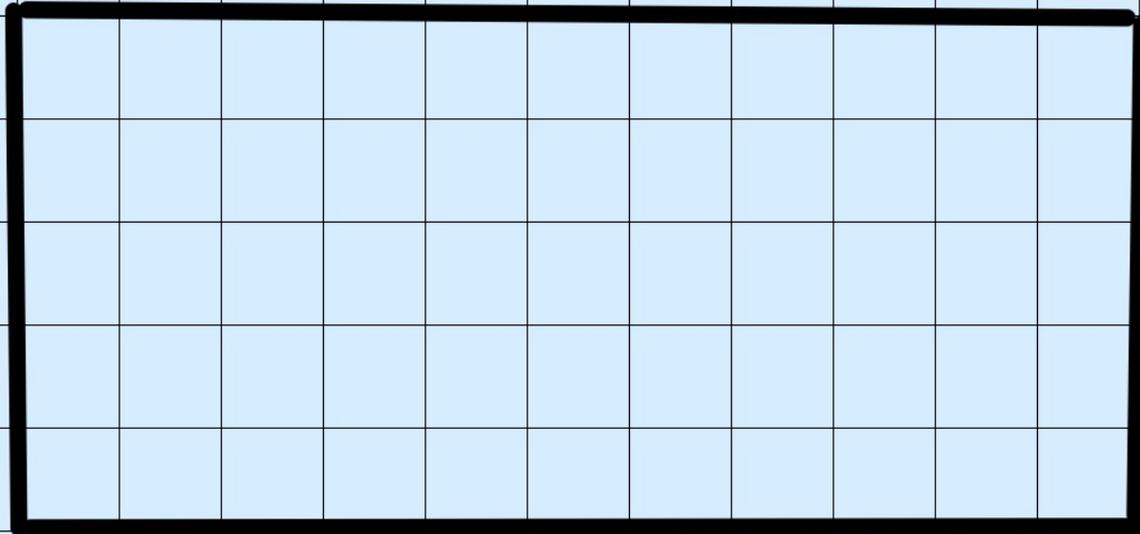


Where is the area of the shape?

How do we find out the area of a shape?

Lets start by counting, but what do we count?

Each
square
is 1cm

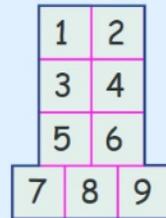
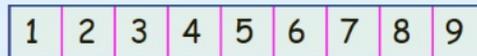


What would we count in?

What is Area?

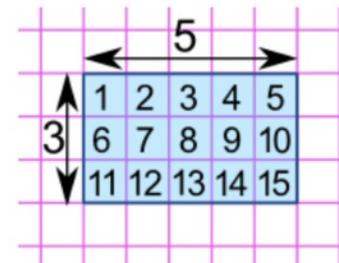
AREA IS THE SIZE OF A SURFACE!

These shapes all have the same area of 9:



Area by Counting Squares

We can also put the shape on a grid and count the number of squares:



The rectangle has an area of **15**

Apart from counting squares does anyone know another way to calculate area?

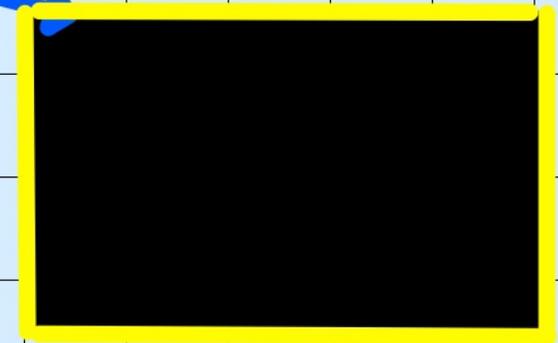
What is Area?

Area is the surface within the shape.
How is this different to perimeter?

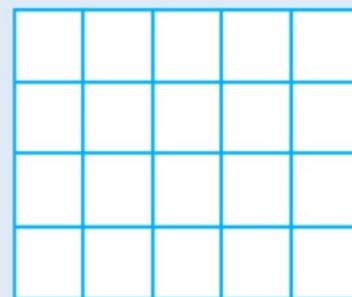
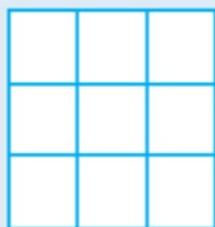
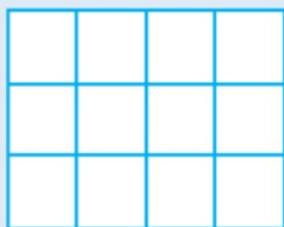


What is perimeter?

Perimeter is the total distance around the shape.



Complete the sentences for each shape.

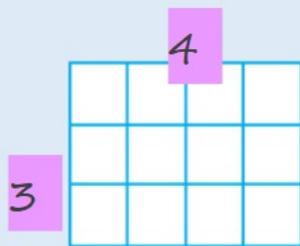


The area of the shape is squares.

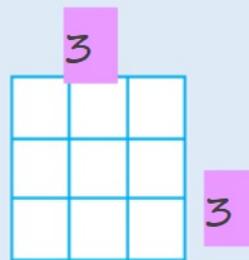
Activity 1

Counting Squares

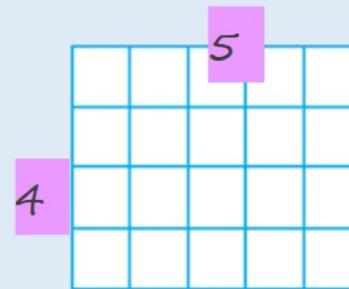
Complete the sentences for each shape.



The area of the shape is **12** squares.



The area of the shape is **9** squares.



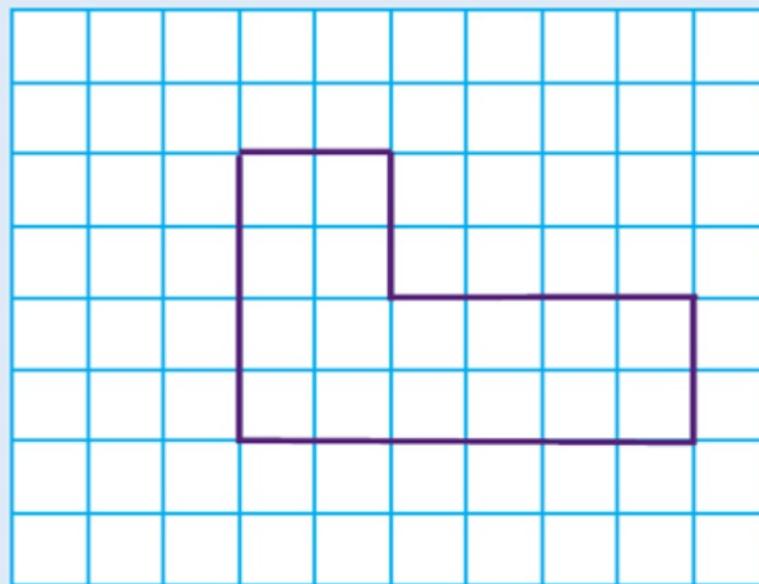
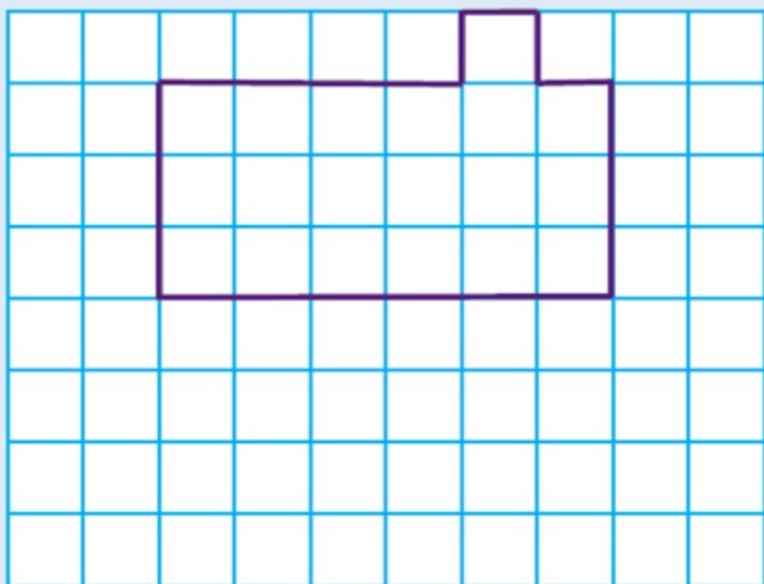
The area of the shape is **20** squares.

Can you spot a pattern?

Activity 1

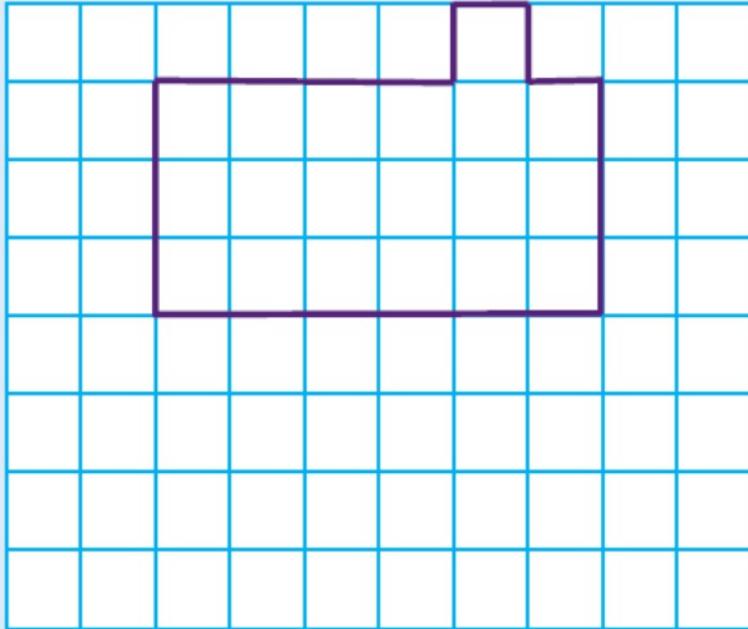
Counting Squares

Complete the sentences for each shape.

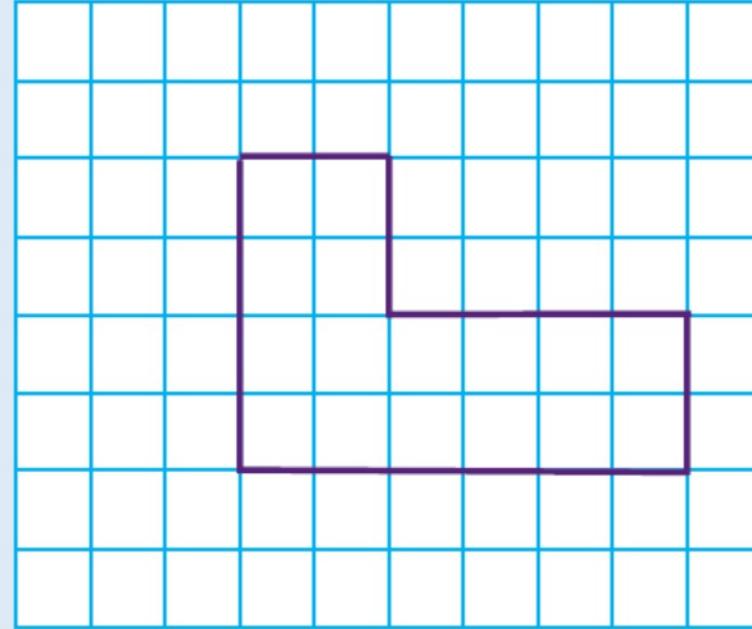


The area of the shape is squares.

Complete the sentences for each shape.

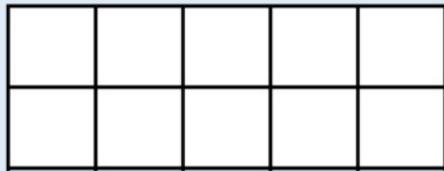


The area of the shape is 19
squares.



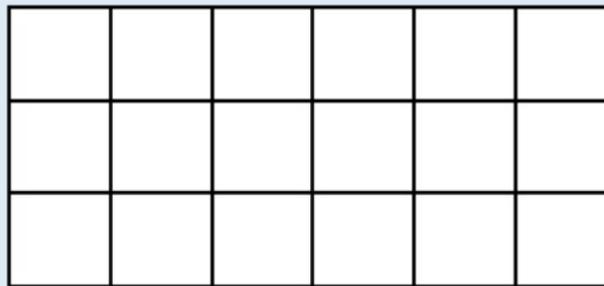
The area of the shape is 16
squares.

Leanna uses her times-tables to count the squares more efficiently.

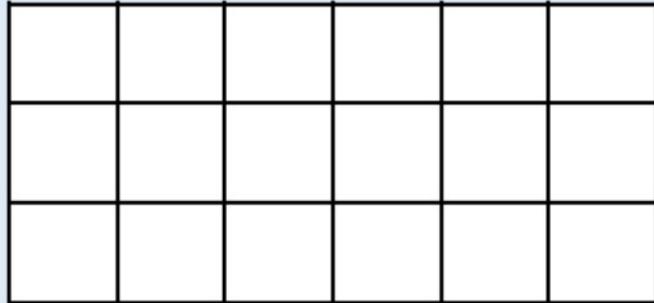


There are 5 squares in 1 row.
There are 2 rows altogether.
 $2 \text{ rows of } 5 \text{ squares} = 10 \text{ squares}$

Use Leanna's method to find the area of this rectangle:



We can count but what else can we do?



There are 6 squares in 1 row.

There are 3 rows altogether.

3 rows of 6 squares = 18 squares



We can use our multiplication knowledge if we have regular shape!

Practical Task: exploring area.

Mild: Identify the best shape for counting the area of a shape?

Spicy: Explain your reasoning.

Why is the shape you have chosen to measure area the best shape?

Hot:

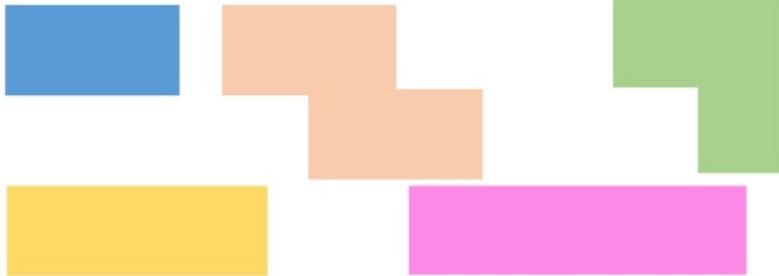
Create your own irregular shapes and begin to apply how you would measure it.

Mild:

This is a square sticky note.



Estimate how many sticky notes you need to make these shapes?



Which of the two shapes covers most surface?

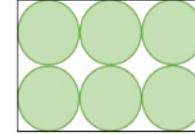


How do you know?

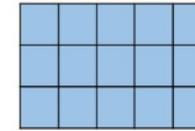
Spicy:

Teddy and Eva are measuring the area of the same rectangle.

Teddy uses circles to find the area.



Eva uses squares to find the area.



Whose method do you think is more reliable?
Explain why.

Two children have measured the top of their desk. They used different sized squares.



Dora

The area of the table top is 6 squares.



Alex

The area of the table top is 9 squares.

Who used the largest squares?
How do you know?

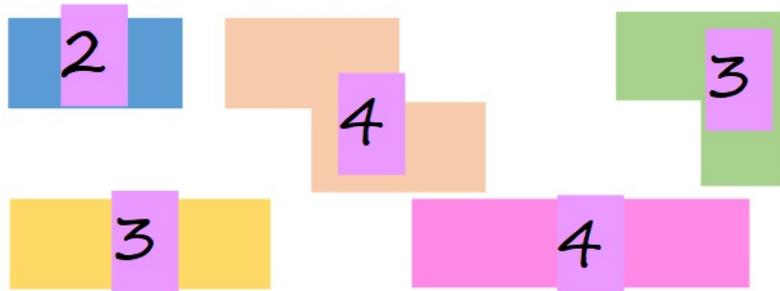
Mild:

This is a square sticky note.



ANSWERS:

Estimate how many sticky notes you need to make these shapes?



Which of the two shapes covers most surface?



How do you know?

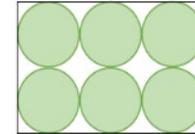
It has a larger surface area.

Spicy:

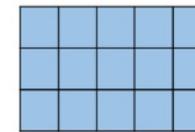
Eva because she has used squares to measure area, and no gaps are left unmeasured.

Teddy and Eva are measuring the area of the same rectangle.

Teddy uses circles to find the area.



Eva uses squares to find the area.



Whose method do you think is more reliable?
Explain why.

Two children have measured the top of their desk. They used different sized squares.



Dora

The area of the table top is 6 squares.

The area of the table top is 9 squares.



Alex

Who used the largest squares?
How do you know?

Dora, because she has counted less squares.