

Chapter 32: Area

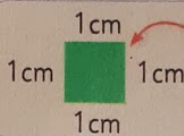
We call the measure of the surface of an object its **area**.

We may use different non-standard units to measure the following.

	surface area of	measured with	estimate	actual
1.	(a)	this page	playing cards	
	(b)	desktop	envelopes	
	(c)	classroom door	maths books	



All of the above ways of measuring work, but it is much better to have the same standard unit.



Each side measures 1cm.

This is called a square centimetre.

We write this as 1 sq. cm or 1cm².

2. Count the number of cm² in each of these shapes to find its **surface area**.

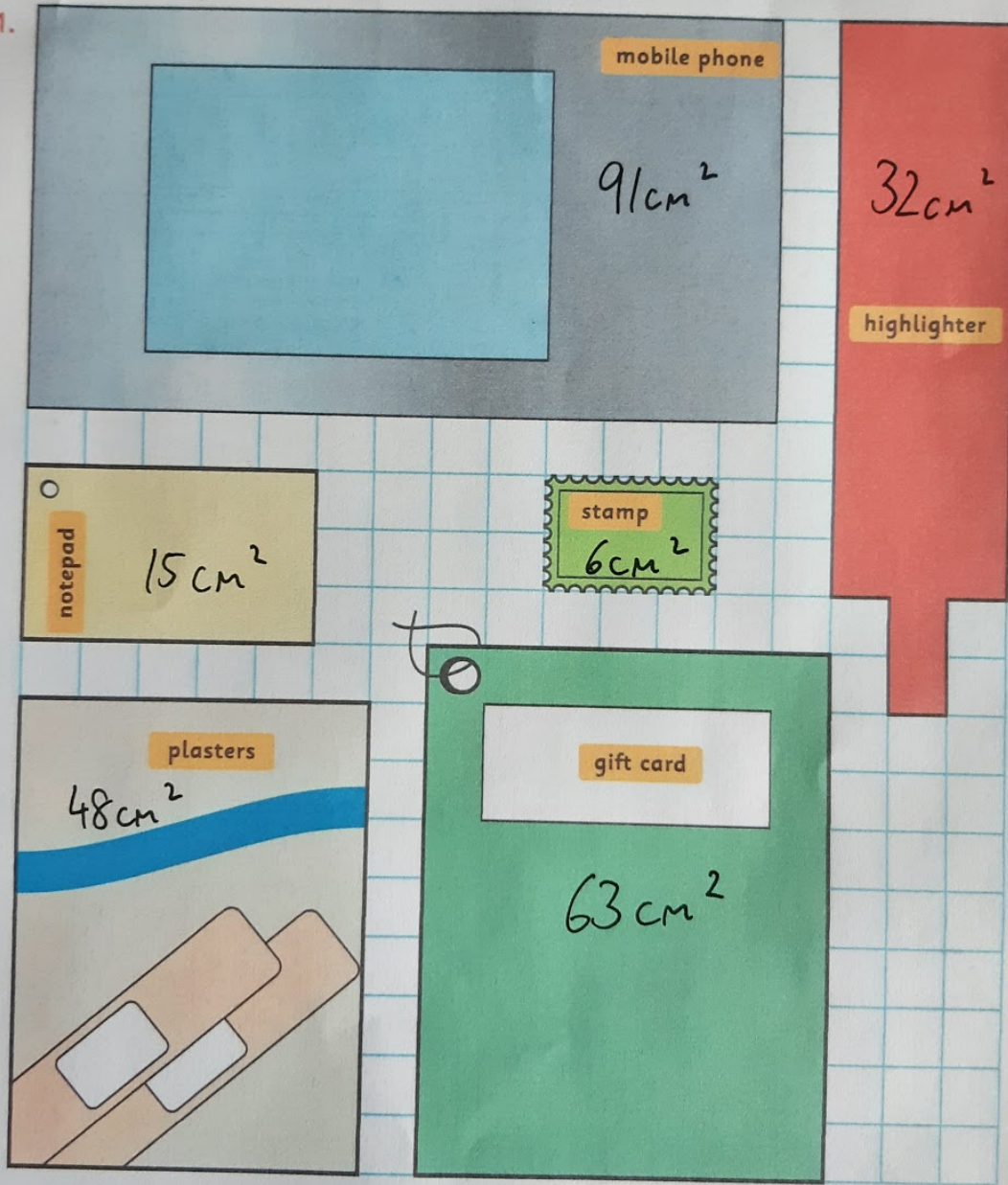


3. How many cm² would a rectangle 6cm long and 4cm wide cover? 24 cm²

Area - Using a cm^2 grid

Each of the shapes on this square centimetre grid is an everyday object. Count the square centimetres (cm^2) covered by each shape to find its area.

1.



2. Write the names of the above objects in order, starting with the one that has the smallest area.

- (i) Stamp (ii) Notepad (iii) Highlighter
(iv) Plasters (v) Gift card (vi) Mobile phone

Area - Irregular shapes

It is easy to count the full cm^2 in regular shapes.
Here are some tips for irregular shapes and triangles.

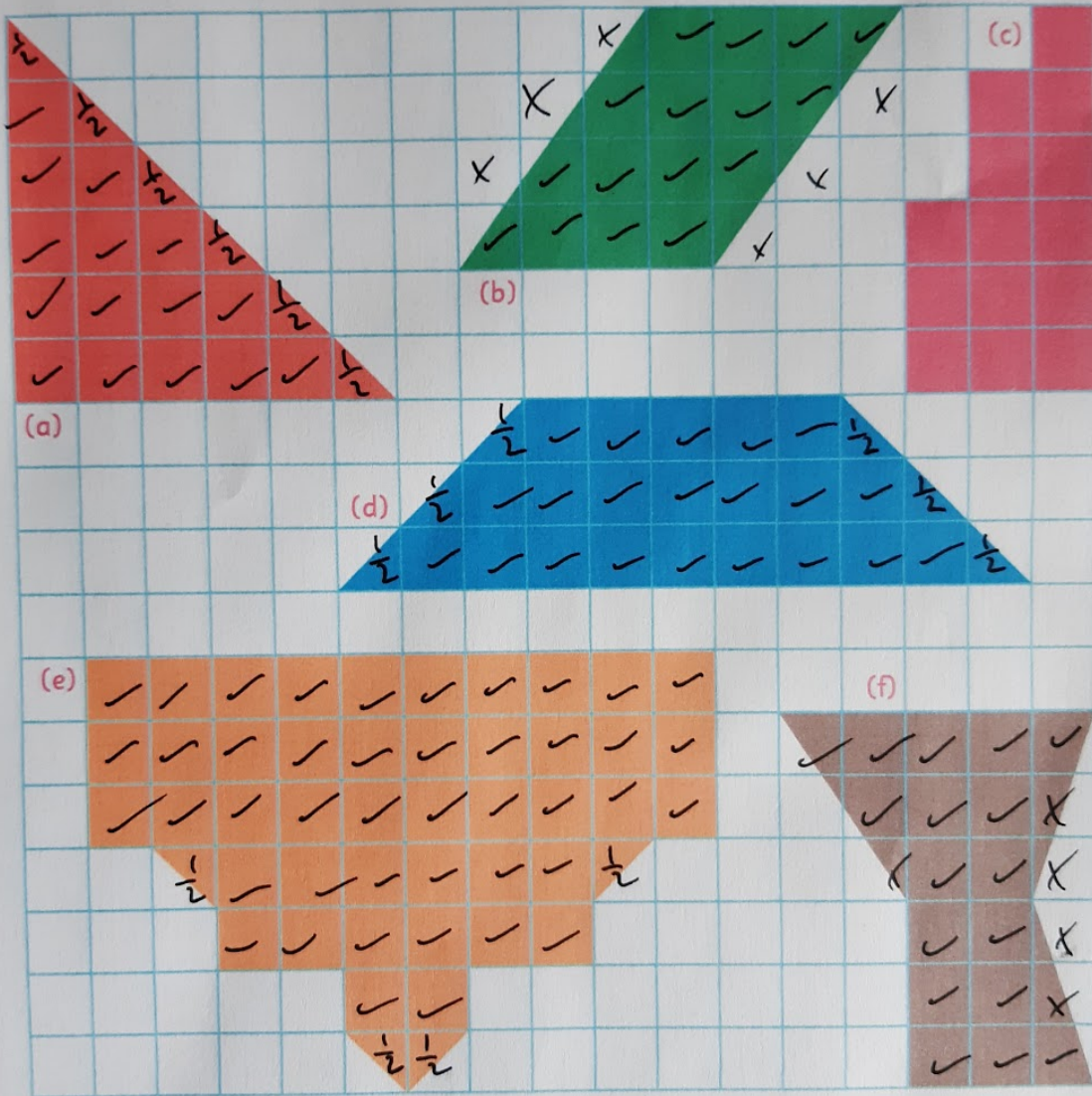


Count all $\frac{1}{2}\text{cm}^2$, remembering that two $\frac{1}{2}\text{cm}^2 = 1\text{cm}^2$.

Count as full cm^2 any squares that are more than $\frac{1}{2}\text{cm}^2$.



Ignore any square that is less than $\frac{1}{2}\text{cm}^2$.



Complete this grid, based on the above irregular shapes.

Shape (a): estimate <input type="text"/> cm^2	actual <u>18</u> cm^2	Shape (b): estimate <input type="text"/> cm^2	actual <u>16</u> cm^2
Shape (c): estimate <input type="text"/> cm^2	actual <u>14</u> cm^2	Shape (d): estimate <input type="text"/> cm^2	actual <u>24</u> cm^2
Shape (e): estimate <input type="text"/> cm^2	actual <u>46</u> cm^2	Shape (f): estimate <input type="text"/> cm^2	actual <u>17</u> cm^2