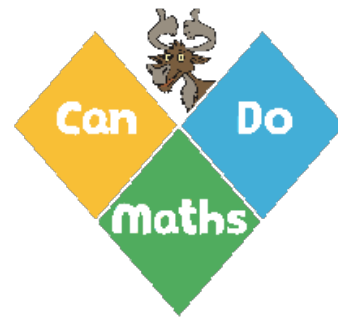




Colin and Coco's Deliberate Practice

Year 6 Unit 12

Measurement: Area and Volume





Contents

This pack of deliberate practice is designed to be used flexibly to secure the manageable steps of this unit.

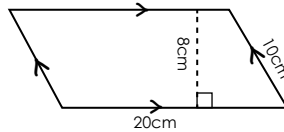
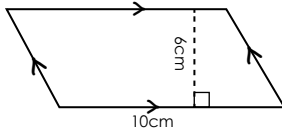
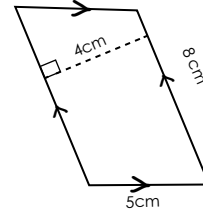
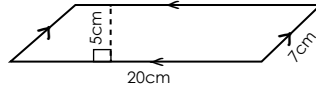
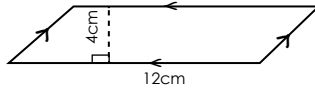
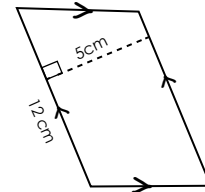
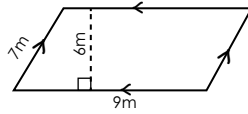
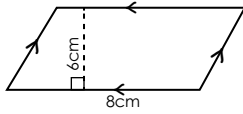
The table below indicates which activities are linked to which manageable steps.

	Do It	Challenge It	Play It
Recognise that shapes with the same areas can have different perimeters and vice versa		1	1
Calculate the area of a parallelogram	1		
Calculate the area of a triangle	2	2	
Calculate the volume of cuboids, including cubes			2



Do It 1

Calculate the area of the parallelograms:



Area and Perimeter Challenge

Challenge It 1

Draw at least four rectangles with an area of 24 cm^2 .
Put the rectangles in order of their perimeters from smallest to largest.

Draw at least four rectangles with a perimeter of 40 cm.
Put the rectangles in order of their areas from smallest to largest.



Area / Perimeter Game

Play It 1

You need:

Squared Paper

Two 1 - 6 Dice

Ruler

To play:

Roll the dice.

Multiply the numbers together.

The product is the *area* of a shape.

Each player draws a shape with this area.

Each player measures the lengths of the sides of their shape and calculates the perimeter.

The player with the largest perimeter wins one point.

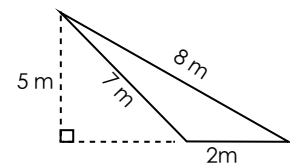
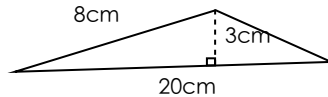
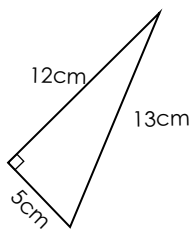
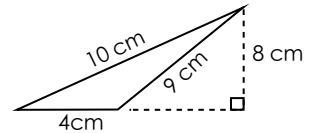
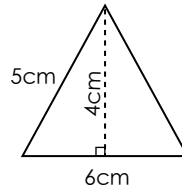
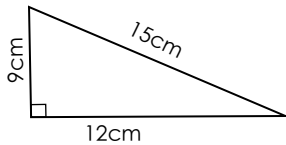
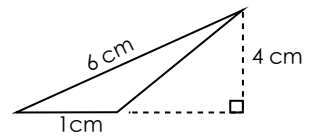
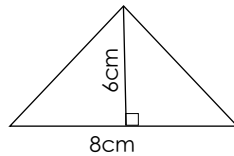
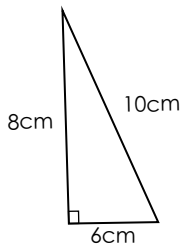
To win:

The winner is the player with the most points after five goes.



Do It 2

Calculate the area of the triangles:



The area is 12 cm^2 !!
Draw as many triangles as possible with an
area of 12 cm^2

Challenge It 2



Volume Game

Play It 2

You need:

Bag of 1cm^3 cubes (at least 30)

To play:

Each player grabs a handful of cubes (ideally between 15 and 30) and counts them. This number is the volume of a cuboid.

Each player writes down the dimensions of different cuboids with this volume. (The player has to make the cuboids to show they all work!)

The player with the largest number of different cuboids scores that number.

To win:

The winner is the first player to score 10 points.