



Colin and Coco's Deliberate Practice

Year 4 Unit 14

Answers

Measurement: Perimeter and Area





Contents

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

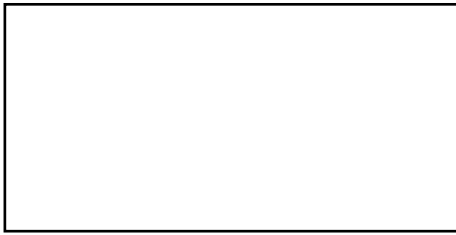
The table below indicates which activities are linked to which manageable steps.

	Do It	Challenge It	Play It
Measure and calculate the perimeter of 2D shapes when dimensions are unknown	1		
Calculate the perimeter of rectangles (including squares) when dimensions are known		1	
Calculate the perimeter of other rectilinear shapes when dimensions are known			1
Find the area of rectangles (including squares) by counting squares	2		2
Find the area of other rectilinear shapes by counting squares		2	



Do It 1

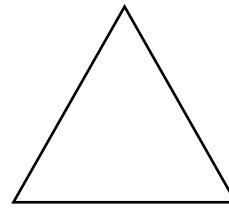
Measure the sides of the shapes and calculate the perimeter.



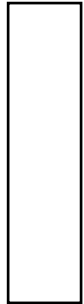
18cm



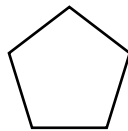
8cm



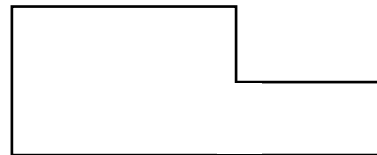
9cm



10cm



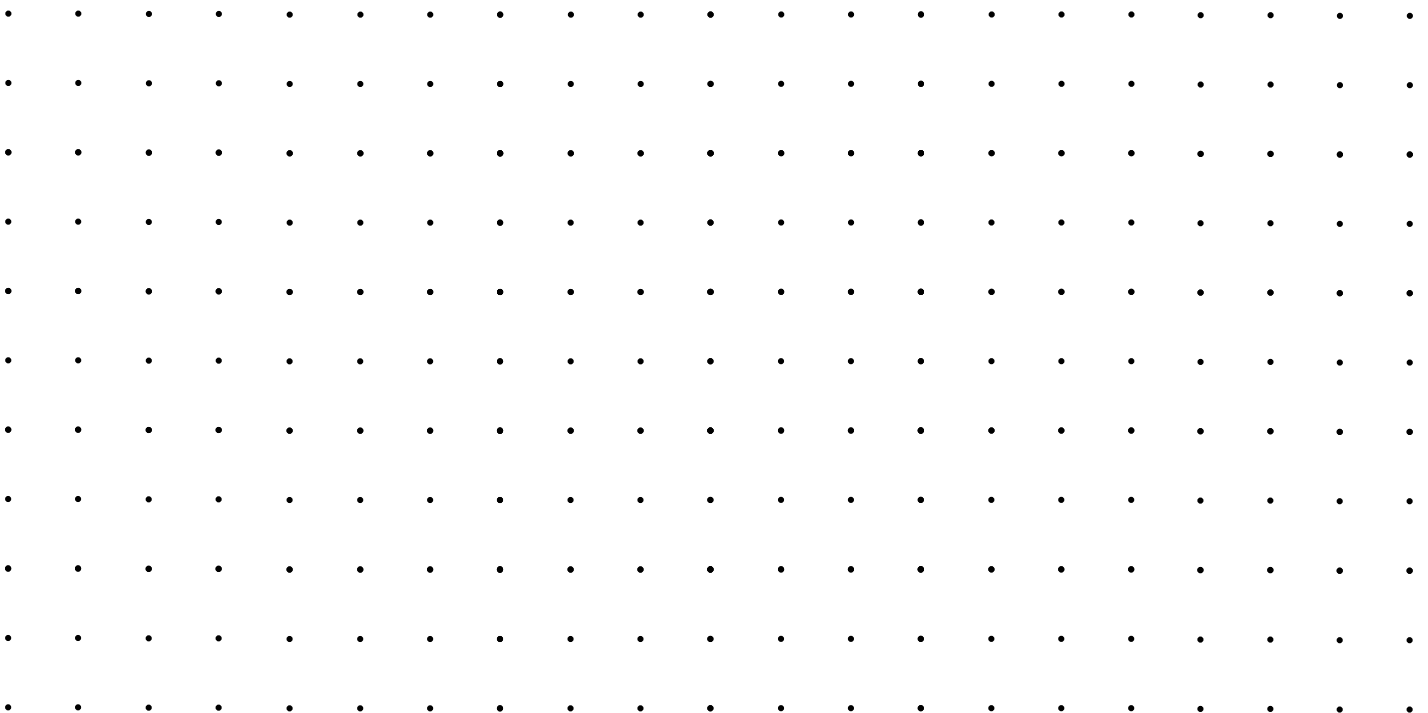
5cm



14cm

Challenge It 1

Draw 6 different rectangles with a perimeter of 24cm



Are there more than 6 possible rectangles?

Investigate rectangles with a perimeter of 11cm



Perimeter Game

Play It 1

You need:

Two 1 - 6 dice

1cm square dotted paper (or use grid from Challenge It 1)

To play:

Players take it in turns to roll the two dice.

They multiply the two numbers together.

The answer is the perimeter of their shape.

Each player tries to draw a rectilinear shape (no rectangles allowed!!) with their perimeter.

If the player can draw a shape, they score one point

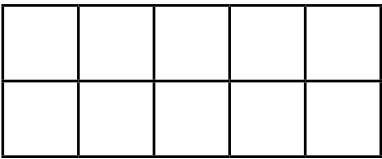
To win:

The winner is the first player to score 10 points.

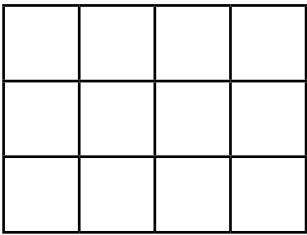


Do It 2

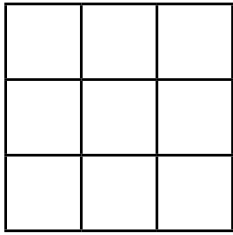
Find the area of the rectangles using the squares.



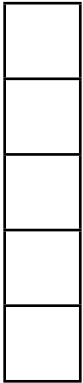
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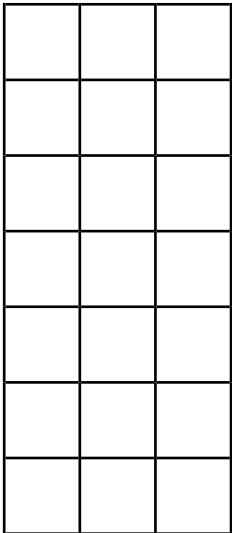
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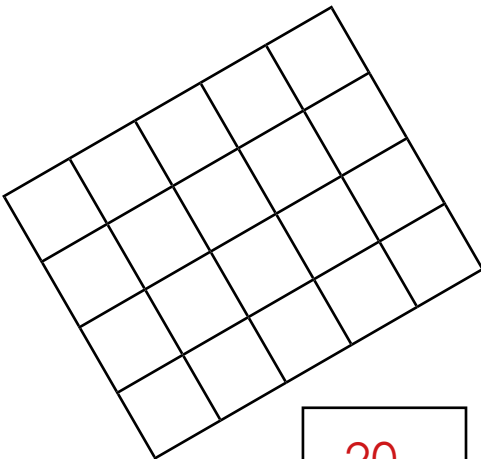
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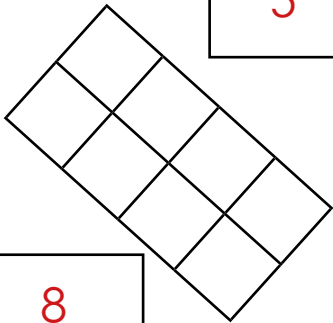
5



21



20



8

Challenge It 2

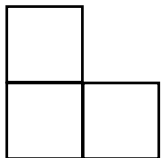
Solution:

Rectangles of area 12 squares

2 x 6, 3 x 4

A rectangle has been broken into pieces.
The area of this piece is one quarter the area of the rectangle.

Draw all the possible rectangles.



Grid of dots for drawing rectangles.

Investigate if the piece is one quarter of other shapes.



Area Game

Play It 2

You need:

Two 1 - 6 dice

100 square grid each

To play:

Players take it in turns to roll the two dice.

They add the two numbers together.

The answer is the area of a shape.

Each player draws and shades a rectilinear shape with this area on their grid

Both players keep rolling the dice and drawing shapes until they have an area that they can't draw.

At this point the game stops for that player.

Both players then count the number of unshaded squares.

The number of unshaded squares is their score.

To win:

The winner is the player with the smallest number of unshaded scores.



100 Square Grid

