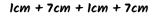
- 1) a) 3cm + 3cm + 3cm + 3cm = 12cm
 - b) 5cm + 5cm + 3cm = 13cm
 - c) 2cm + 2cm + 7cm + 7cm = 18cm
 - d) 8cm + 3cm + 8cm + 3cm = 22cm
- 2) A = 10cm
 - B = 4cm
 - C = 9cm
 - D = 6cm
- 1) Theo is incorrect as he has only added the two sides given and has therefore not calculated the perimeter of the whole shape. Opposite sides of a rectangle are equal length and therefore the missing lengths are 7cm and 4cm. The perimeter is 7 + 4 + 7 + 4 = 22cm.



- 2) 40÷10=4cm
 - 8+8+4=20cm

The triangle has a perimeter of 20cm.

1) Three possible rectangles:



2cm + 6cm + 2cm + 6cm

3cm + 5cm + 3cm + 5cm

2) False

Original rectangle -6+4+6+4=20cm perimeter

Half measurements -3+3+8+8=22m

$$2 + 2 + 12 + 12 = 28$$
cm

3) a) Six rectangles with the following whole integer dimensions:

Icm × 12cm

2cm × 11cm

3cm × 10cm

4cm × 9cm

5cm × 8cm

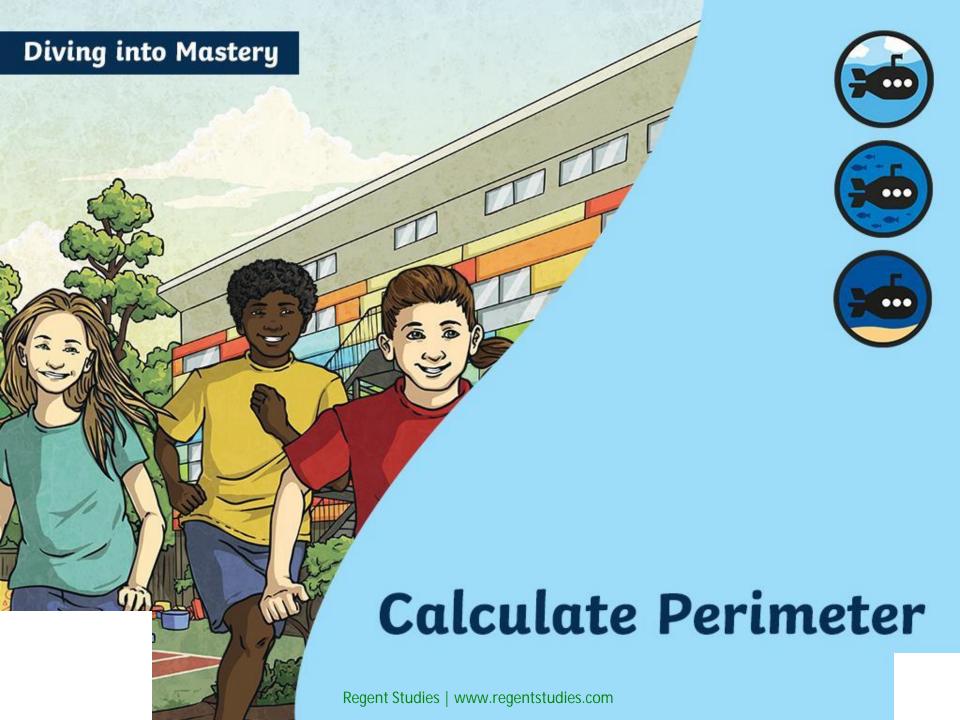
6cm × 7cm

b) Children's answers will vary.

1)	Calcul	late the	e perim	eter of	these	shapes	s. You	can use	the b	ox belo	ow for	your w	orkin	g out.			
	(a) 3cm 3cm	3cm 3cm	3cm	b)	Ų	3cm	3	c)	2 Year	2cm	•	d)	3cm	8cm 8cm	3cm	
	Perimeter =				Pe	rimete	r =		Per	imeter			Peri	meter			
2)	Now f	ind the	lenatk	ns of th	ne miss	ina sia	100 110	ing the	inforr	nation	aiven	to heln					
-,	Now	ina ine		13 OJ 11	te iitiss	ing sit	ies, us	ing the	iijoii	itation	. given	В	you.				
	ęcm		A		A =				1	SUR	À		Zu [B =			
		8cı	n	74					J			= 18cm					
	Per	imeter	= 24cn	n								- IOCIII					
		c	;							1	cm	777					
				→						11cm		11cm					
	3cm				C =					·				D =			
	Davins		27								D Derime	eter = 3:	2cm				
	Perim	eter = :	24cm								r er tirte		20111				

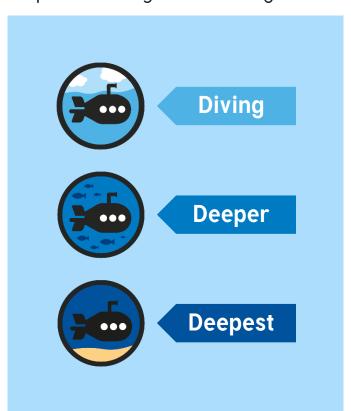
Theo is calculating the perimeter of this rectangle.															
4cm															
		7cm	ı												
He saı	ys that	the pe	erimete	er is 110	cm. Th	ieo is ii	ıcorrec	t. Expl	ain wh	ıy.					
Each s	side of	the bl	ue shaj	oe is th	ıe sam	ne lengt	th.								
								na of th	no sido	۲.1	م الم	shane			
The m	iissing	length						na at th	ahis ar		a blira	shane			
		•	of the	triang	gle is t	he sam	ie as oi	ite oj ti	ie siae	s of th	e blue	onape.			
What	is the							ne oj ti	ie side	s of th	e blue	ortape.			
What	is the					he sam riangle		nie oj ti	ie siue	s of th	e blue	опарс.			
What	is the							ite oj ti	ie siue	s of th	e blue	эпаре.			
What	is the							The OJ th	ie siue	s of th	e blue	эпаре.			
What	is the							Me oj ti	ie siue	s of th	e blue	эпаре.			
What	is the					riangle	?			s of th	e blue	Situpe.			
What	is the					riangle		con the		s of th	e blue	экаро.			
What	is the					riangle	?			s of th	e blue	опаро.			
What	is the					riangle	?			s of th	e blue	опарс.			
	is the	perime	eter of			riangle	?			s of th	e Dide	Sitapo.			
		perime	eter of			riangle	?			s of th	e blue	Jitapo			
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		perime	eter of			riangle	?			s of th	e blue	Jitapo			
		perime	eter of			riangle	?			s of th	e blue	Jitapo			
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		perime	eter of			riangle	?			s of th		erimet			

						e is 16c ssibilit		e length	ıs are (all wh	ole nui	nbers.	What	could	the le	engths	of	
						q												
			α															
	α = .				=													
	α = _			_ b	=													
	α = .			_ b	=													
)	Hugo	has a	lrawn	a rect	angle.													
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4				and the	double other p	e pair o the le pair, I o e perin	ngth o will ge	f	4cm									
	Is th	is true	? Prov		to sum	е реги	101011											
)								you co					of 260	cm.				
				1														



Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:



These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

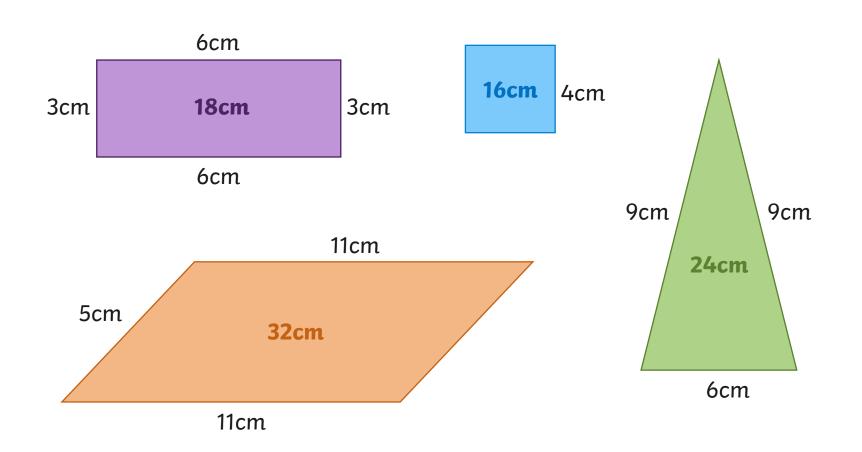
These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

Aim

• Measure the perimeter of simple 2-D shapes.

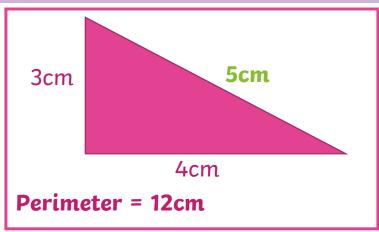


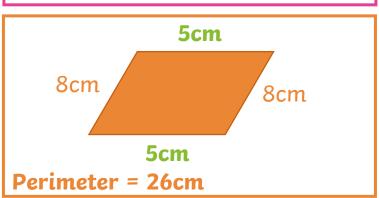
Calculate the perimeter of these shapes.

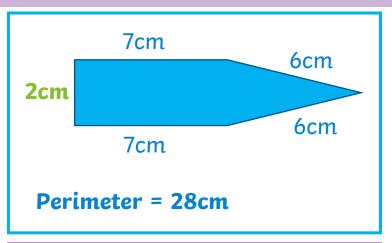




Now find the lengths of the missing sides, using the information given to help you.



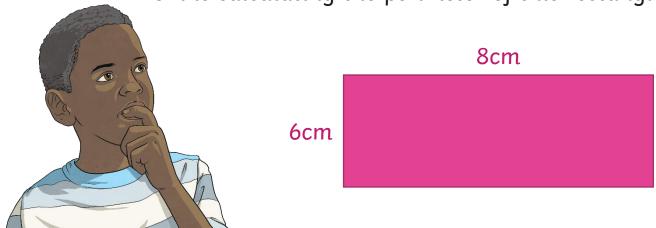








Tom is calculating the perimeter of this rectangle.



He says that the perimeter is 14cm. Is Tom correct? Explain your reasoning.

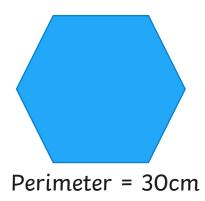
Tom is incorrect as he has only added the two sides given and has therefore not calculated the perimeter of the whole shape. Opposite sides of a rectangle are equal length, therefore the missing lengths are 8cm and 6cm. The perimeter is 8 + 6 + 8 + 6 = 28cm.

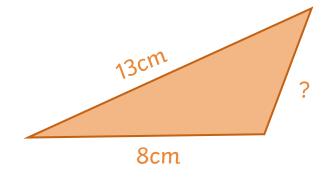


Each side of the blue shape is the same length.

The missing length on the orange shape is the same as one side of the blue shape.

What is the perimeter of the orange shape?





 $30 \div 6 = 5$ cm. Each side is 5cm in length.

8 + 13 + 5 = 26cm. The triangle has a perimeter of 26cm.



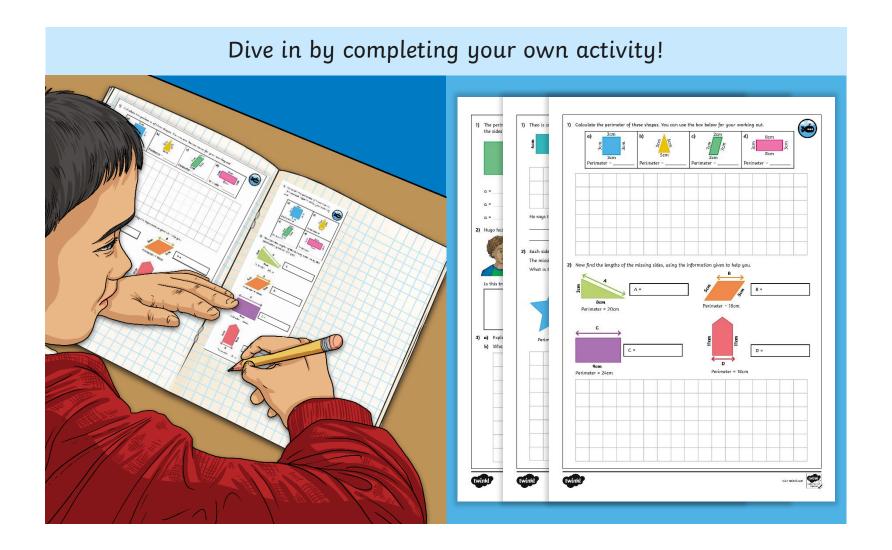
The perimeter of the rectangle is 10cm. The lengths of the sides are whole numbers.

What could the lengths of the sides be? Find all possibilities.

a b



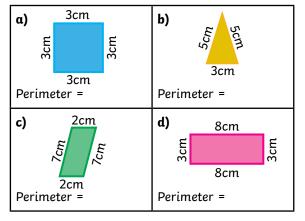
Calculate Perimeter



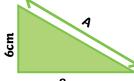


1) Calculate the perimeter of these shapes.
Use squared paper to show your working out.





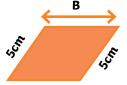
2) Now find the lengths of the missing sides, using the information given to help you.



A =

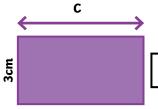
8cm

Perimeter = 24cm



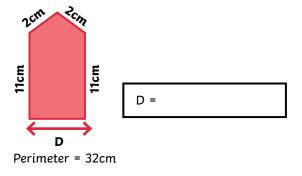
B =

Perimeter = 18cm



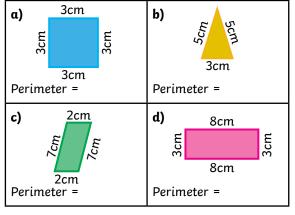
C =

Perimeter = 24cm

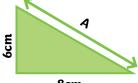


Calculate the perimeter of these shapes.
 Use squared paper to show your working





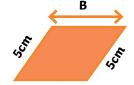
2) Now find the lengths of the missing sides, using the information given to help you.



A =

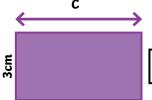
8cm

Perimeter = 24cm



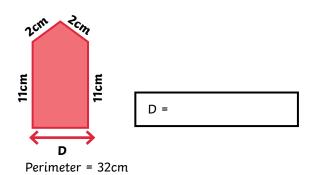
B =

Perimeter = 18cm



C =

Perimeter = 24cm



1) Theo is calculating the perimeter of this rectangle.





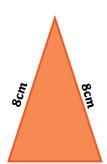
He says that the perimeter is 11cm. Theo is incorrect. Explain why.

2) Each side of the blue shape is the same length.

The missing length of the triangle is the same as one of the sides of the blue shape.

What is the perimeter of the orange triangle?





1) The perimeter of the rectangle is 16cm.
The lengths are all whole numbers. What



could the lengths of the sides be? Find all possibilities.

α

2) Hugo has drawn a rectangle.



If I halve the measurement of one pair of sides and double the length of the other pair, I will get the same perimeter.



Is this true? Prove it!

- **3) a)** Explore how many different rectangles you can draw with a perimeter of 26cm.
 - **b)** What other shapes can you draw with the same perimeter? Explore.

Theo is calculating the perimeter of this rectangle.





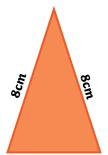
He says that the perimeter is 11cm. Theo is incorrect. Explain why.

2) Each side of the blue shape is the same length.

The missing length of the triangle is the same as one of the sides of the blue shape.

What is the perimeter of the orange triangle?





Perimeter = 40cm

1) The perimeter of the rectangle is 16cm. The lengths are all whole numbers. What could the lengths of the sides be? Find all possibilities.





2) Hugo has drawn a rectangle.



If I halve the measurement of one pair of sides and double the length of the other pair, I will get the same perimeter.



Is this true? Prove it!

- **3) a)** Explore how many different rectangles you can draw with a perimeter of 26cm.
 - **b)** What other shapes can you draw with the same perimeter? Explore.