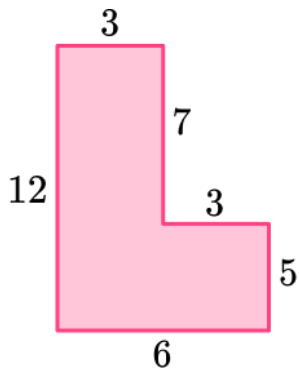THIRD SPACE
LEARNING

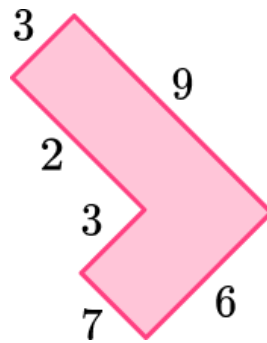# Perimeter of Compound Shapes - Worksheet

Skill

Group A - Perimeter (all lengths given)

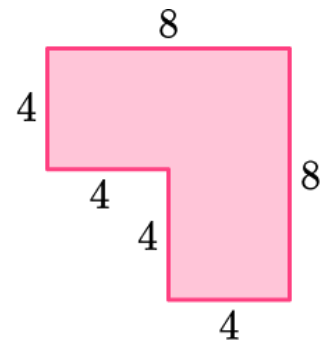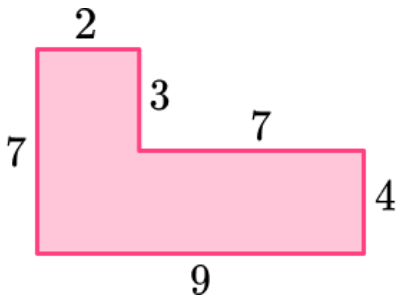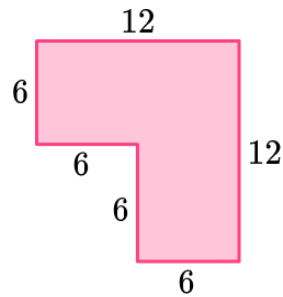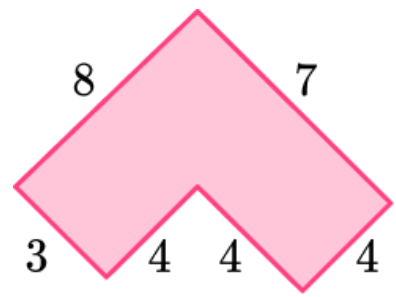Find the perimeter of the following shapes. All measurements are in cm:

1)

2)

3)

4)

5)

6)

7)
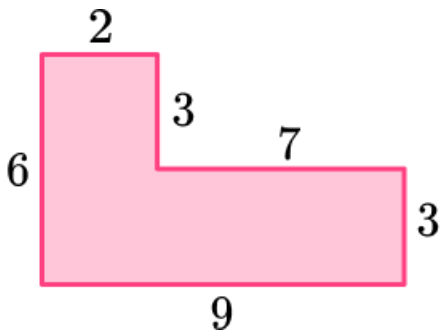
8)
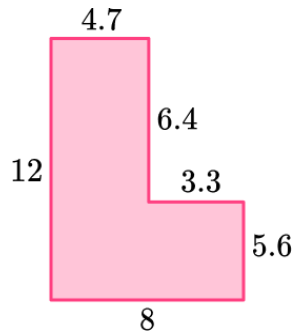
9)
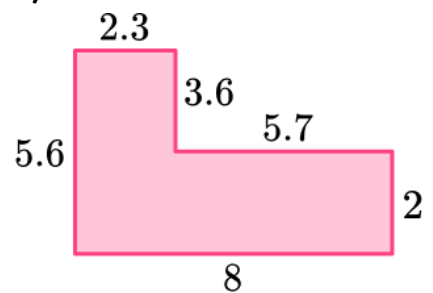
10)

11)

12)

Perimeter of Compound Shapes - Worksheet

Group B - Finding a missing side given the perimeter

Find the missing sides, given the perimeter:
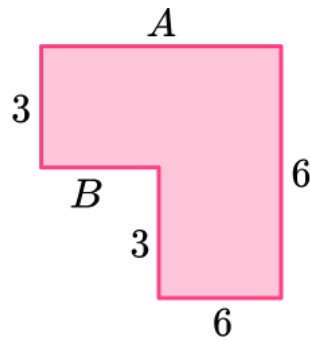
1) $Perimeter = 42cm$

3
B
A
3
5
6

2) $Perimeter = 42cm$

A
3
B
6
3
6

3) $Perimeter = 54cm$

6
B
A
4
5
10

4) $Perimeter = 36cm$

A
C
B
3
6
6

5) $Perimeter = 54cm$

5
8
A
B
C
11

6) $Perimeter = 36cm$

2
C
B
6
3
A

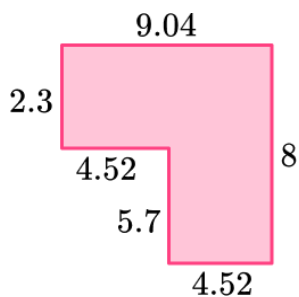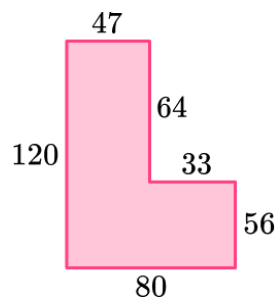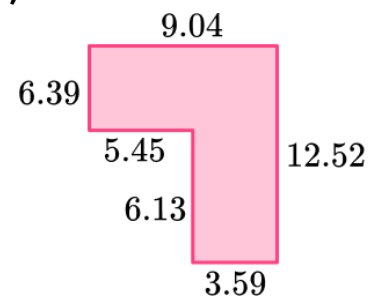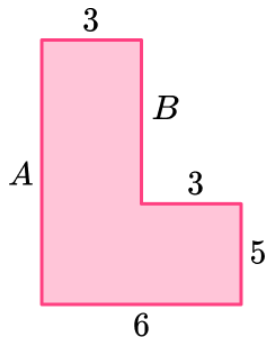**7)** $Perimeter = 36cm$

3
B
A
C
5
6

8) $Perimeter = 42cm$

5
8
A
B
C
11

9) $Perimeter = 42cm$

12
6
7.04
B
C
A

10) $Perimeter = 42cm$

C
3.72
B
A
6
6.6

11) $Perimeter = 42cm$

11
3.72
B
A
C
6.6

12) $Perimeter = 36cm$

C
3.72
B
A
6
6.4

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2
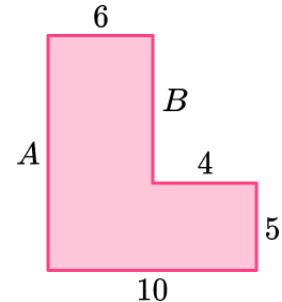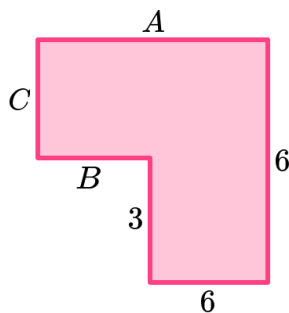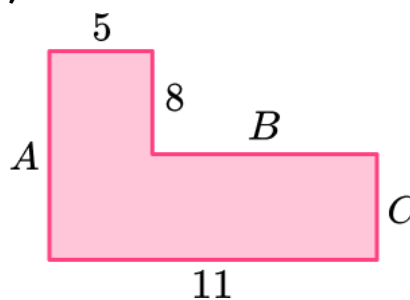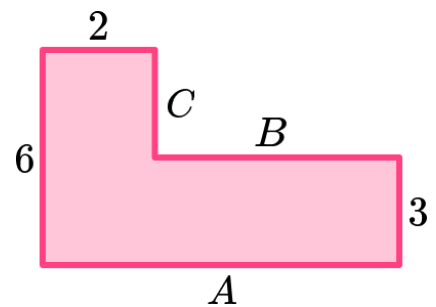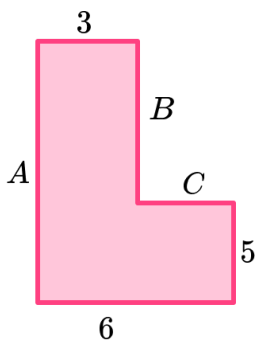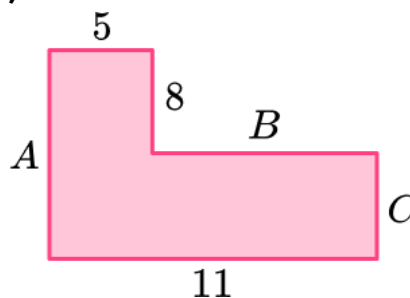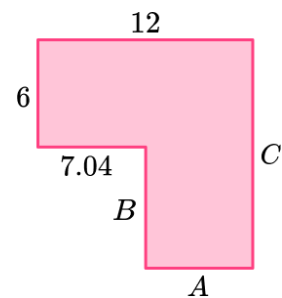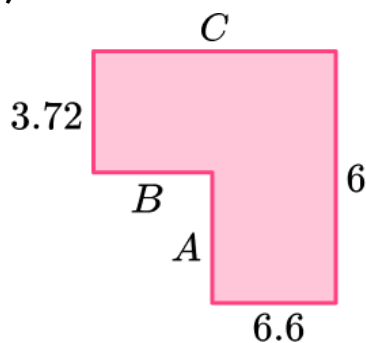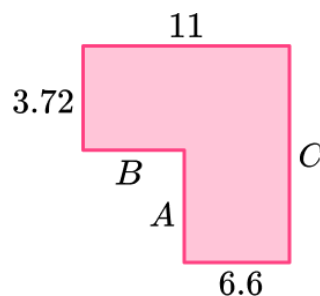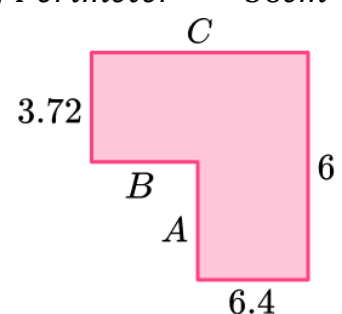
Perimeter of Compound Shapes - Worksheet

Group C - Perimeter (missing lengths)

Find the perimeter of the following shapes. Hence or otherwise, determine the lengths of A, B and C. All measurements are in cm:

1)

3

A

12

B

5

6

2)

A

B

2

3

7

6

3)

A

3

7

6

B

9

4)

A

7

B 4   4   4

5)

B

6

6

12

A

6

6)

4.7

6.4

B

3.3

5.6

A

7)

2.3

2.6

5.7

B

2

A

8)

B

2.3

4.52

A

5.7

4.52

9)

B

6.39

5.45

A

6.13

3.59

10)

A 5

6   6

B 10   10

4

20

11)

4

A

6   11

2

11

B

4

4

12)

B

4

2

A 11

3

2

4

C

Perimeter of Compound Shapes - Worksheet

Applied

1) Each square has an area of $4cm^2$.

Draw a compound shapes that has a perimeter of $20cm$.

2) Which shape is the odd one out? Explain how you know.
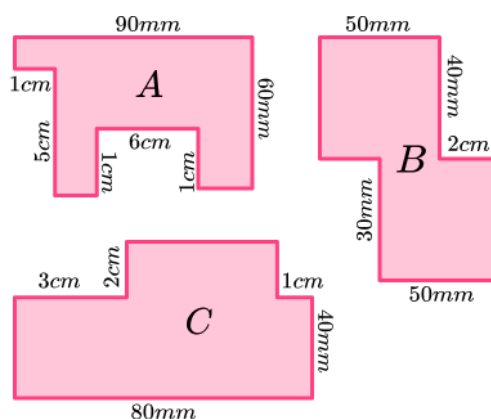
A
90mm
1cm
5cm
6cm
1cm
1cm
60mm

B
50mm
40mm
2cm
30mm
50mm

C
3cm
2cm
1cm
80mm
40mm

3) Laura says that this shape has a perimeter of $40cm$.

2cm
6cm
4cm
30mm
30mm
90mm

(a) Is Laura correct?

(b) Explain your answer.

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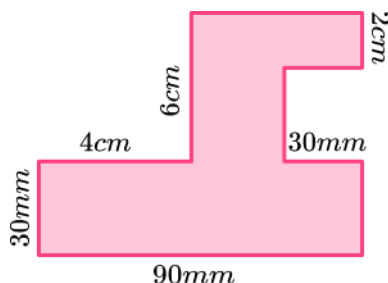
Perimeter of Compound Shapes - Exam Questions

1)   Calculate the perimeter of the shape below

2cm

9cm

5cm

8cm
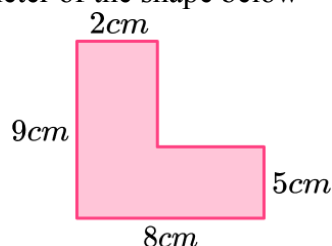
..............cm

(2 marks)

2)   Leo is a landscape gardener. He is redesigning a garden for his
customer. He wants to build a new fence around the garden.

2m

9m   8m

2m
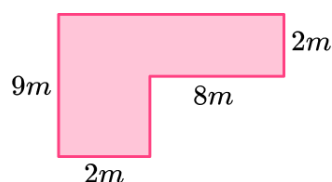
Each metre of fencing will cost £6.99
Work out the cost of the new fence.

....

(4 marks)
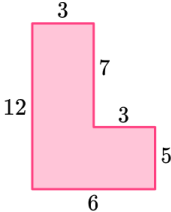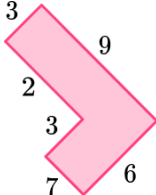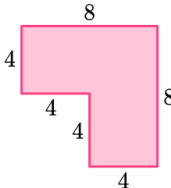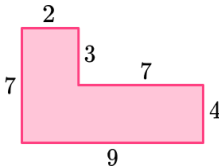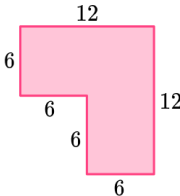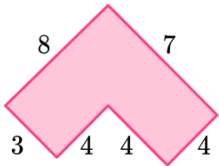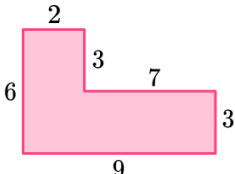
3)   A swimming pool which is rectangular in shape has a length
which is three times its width.

The perimeter of the swimming pool is 16m.
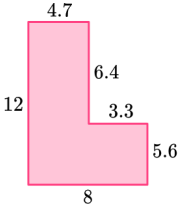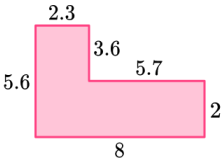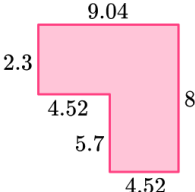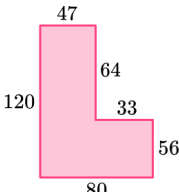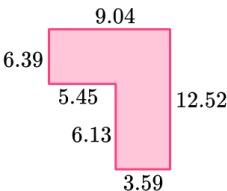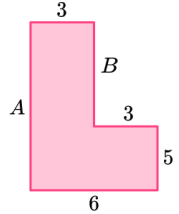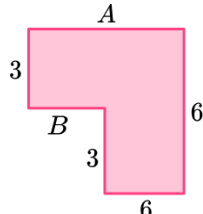
Work out the dimensions of the pool.

....

(4 marks)
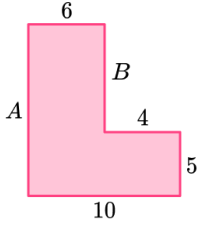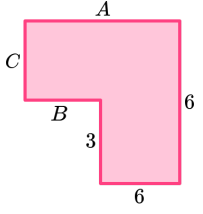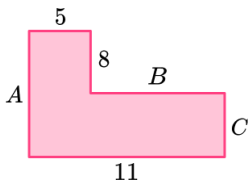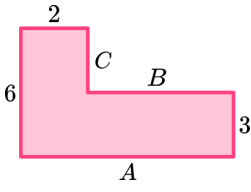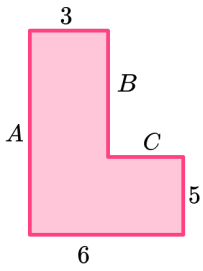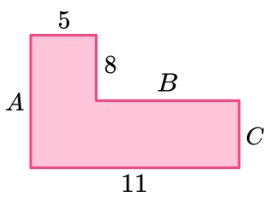
Perimeter of Compound Shapes - Answers

	Question	Answer
	Skill Questions	
Group A	Find the perimeter of the following shapes. All measurements are in cm:	
	1)	**1)** 36cm
	2)	**2)** 30cm
	3)	**3)** 32cm
	4)	**4)** 32cm
	5)	**5)** 48cm
	6)	**6)** 30cm
	7)	**7)** 30cm

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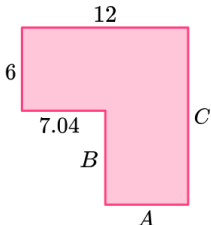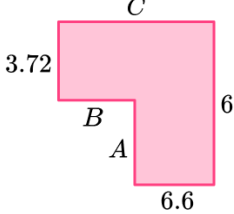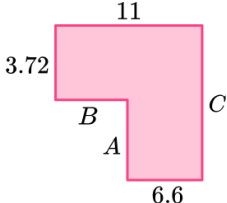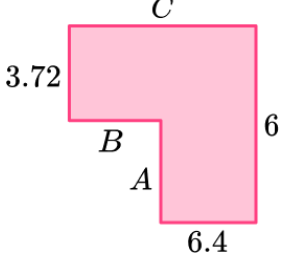
Perimeter of Compound Shapes - Answers

Group A contd		
	8) 4.7 6.4 12 3.3 5.6 8	**8)** 40cm
	9) 2.3 3.6 5.7 5.6 2 8	**9)** 27.2cm
	10) 9.04 2.3 4.52 8 5.7 4.52	**10)** 34.08cm
	11) 47 64 120 33 56 80	**11)** 400cm
	12) 9.04 6.39 5.45 12.52 6.13 3.59	**12)** 43.12cm
Group B	Find the missing sides, given the perimeter:	
	1) $Perimeter = 42cm$ 3 B A 3 5 6	**1)** A=15, B=10
	2) $Perimeter = 42cm$ A 3 6 B 3 6	**2)** A=15, B=9

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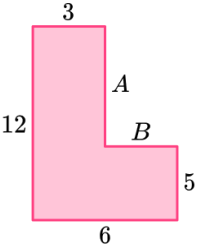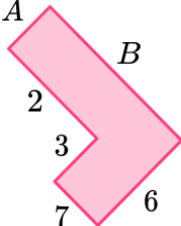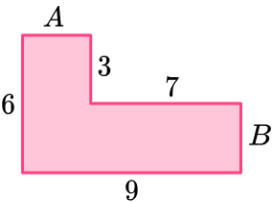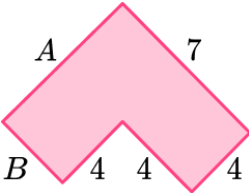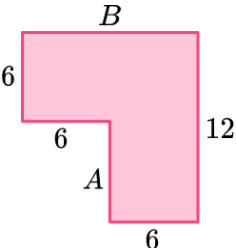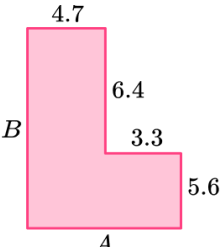
Perimeter of Compound Shapes - Answers

Group B contd		
	3) $Perimeter = 54cm$	**3)** $A = 17, B = 12$
	4) $Perimeter = 36cm$	**4)** $A = 12, B = 6, C = 3$
	5) $Perimeter = 54cm$	**5)** $A = 16, B = 6, C = 8$
	6) $Perimeter = 36cm$	**6)** $A = 12, B = 10, C = 3$
	7) $Perimeter = 36cm$	**7)** $A = 12, B = 7, C = 3$
	8) $Perimeter = 42cm$	**8)** $A = 10, B = 6, C = 2$

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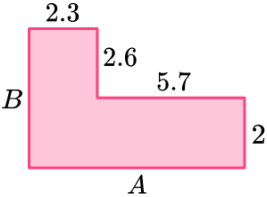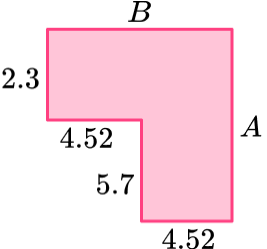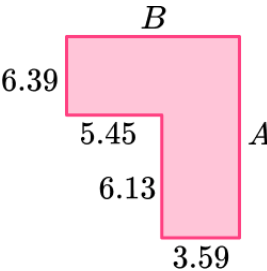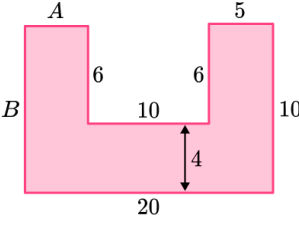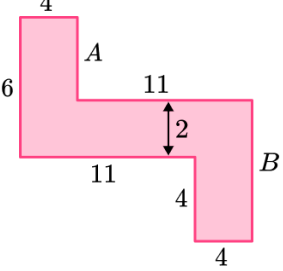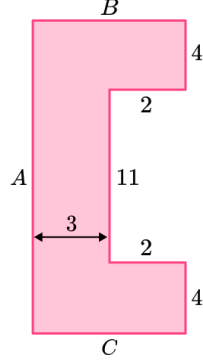
Perimeter of Compound Shapes - Answers

Group B contd	9) $Perimeter = 42cm$ $\begin{array}{c}12\\6\\7.04\\B\\A\end{array}$ C	9) $A = 4.96$, $B = 3$, $C = 9$
	10) $Perimeter = 42cm$ C 3.72 B A 6 6.6	10) $A = 2.28$, $B = 8.4$, $C = 15$
	11) $Perimeter = 42cm$ 11 3.72 B C A 6.6	11) $A = 6.28$, $B = 4.4$, $C = 10$
	12) $Perimeter = 36cm$ C 3.72 B A 6 6.4	12) $A = 2.28$, $B = 5.6$, $C = 12$

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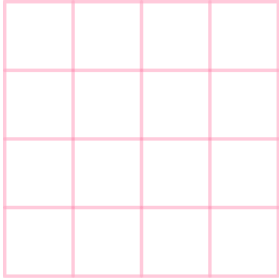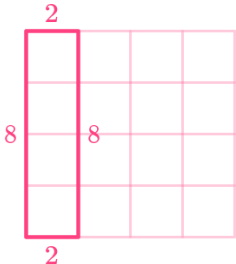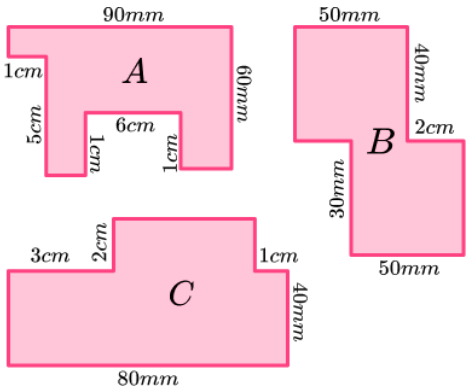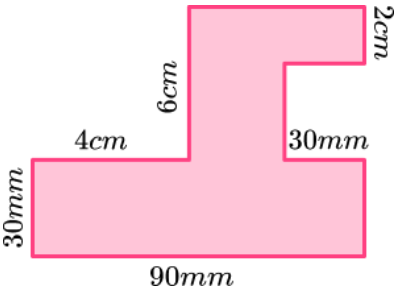
Perimeter of Compound Shapes - Answers

Group C	Find the perimeter of the following shapes. Hence or otherwise, determine the lengths of A, B and C. All measurements are in cm:	
	1)	**1)** $P = 36cm$ $A = 7cm$ $B = 3cm$
	2)	**2)** $P = 30cm$ $A = 3cm$ $B = 9cm$
	3)	**3)** $P = 30cm$ $A = 2cm$ $B = 3cm$
	4)	**4)** $P = 30cm$ $A = 8cm$ $B = 3cm$
	5)	**5)** $P = 48cm$ $A = 6cm$ $B = 12cm$
	6)	**6)** $P = 40cm$ $A = 8cm$ $B = 12cm$

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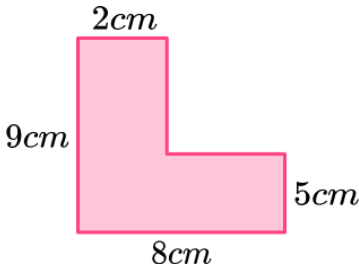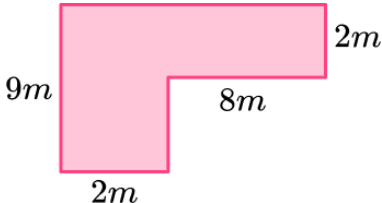
Perimeter of Compound Shapes - Answers

Group C contd	7)		**7)** $P = 25.2cm$ $A = 8cm$ $B = 4.6cm$
	8)		**8)** $P = 34.08cm$ $A = 8cm$ $B = 9.04cm$
	9)		**9)** $P = 43.12cm$ $A = 12.52cm$ $B = 9.04cm$
	10)		**10)** $P = 72cm$ $A = 5cm$ $B = 10cm$
	11)		**11)** $P = 50cm$ $A = 4cm$ $B = 6cm$
	12)		**12)** $P = 52cm$ $A = 19cm$ $B = 5cm$ $C = 5cm$

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Perimeter of Compound Shapes - Answers

	Question	Answer
	Applied Questions	
1)	Each square has an area of $4cm^2$. Draw a compound shapes that has a perimeter of $20cm$.	Any correctly drawn shape E.g. (shape with sides labelled 2, 8, 8, 2)
2)	Which shape is the odd one out? Explain how you know. A: 90mm, 1cm, 5cm, 6cm, 1cm, 1cm, 60mm B: 50mm, 40mm, 2cm, 30mm, 50mm C: 3cm, 2cm, 1cm, 40mm, 80mm	A is the odd one out. B and C both have a perimeter of $28cm$, A has a perimeter of $32cm$.
3)	Laura says that this shape has a perimeter of $40cm$. (L-shape: 2cm, 6cm, 4cm, 30mm, 30mm, 90mm) **a)** Is Laura correct? **b)** Explain your answer.	**a)** No **b)** The perimeter is $42cm$.

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Perimeter of Compound Shapes - Mark Scheme

	Question	Answer	
	Exam Questions		
1)	Calculate the perimeter of the shape below	$2 + 9 + 8 + 5 + 6 + 4$ $34cm$	**(1)** **(1)**
2)	Leo is a landscape gardener. He is redesigning a garden for his customer. He wants to build a new fence around the garden. Each metre of fencing will cost £6.99 Work out the cost of the new fence.	$2 + 9 + 10 + 2 + 8 + 7$ $38m$ 38×6.99 £265.62	**(1)** **(1)** **(1)** **(1)**
3)	A swimming pool which is rectangular in shape has a length which is three times its width. The perimeter of the swimming pool is $16m$. Work out the dimensions of the pool.	$x + 3x + x + 3x = 8x$ **oe** $8x = 16$ $x = 2$ $2m$ and $6m$	**(1)** **(1)** **(1)** **(1)**