# 7.6 Perimeter and Area: Test Pack

Calculators not allowed · about 60 minutes

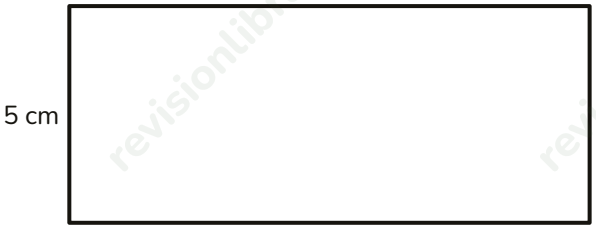
Total Marks

Name: _____ Date: ____ / ____ / _____

**Answer ALL questions. Show all your working.**

**1** A rectangle has length 12 cm and width 5 cm. Work out its perimeter.

Diagram NOT accurately drawn




**(1)**

**2** Books cost £8.84 each. Freya buys 4.

How much does Freya pay?

Answer: £___

**(2)**


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**3** A rectangle is 37 cm long and 22 cm wide.

What is its perimeter?

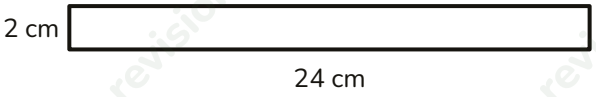
Answer: ___ cm

**(2)**

---

**4** A rectangle has length 24 cm and width 2 cm. What is its perimeter?

Diagram NOT accurately drawn




**(1)**

---

**5** Gift bags cost £2.63 each. Jack buys 6 and pays with £20.

How much change does Jack get?

Answer: £___

**(2)**

---

**6** Books cost £3.81 each. Dev buys 7 and pays with £40.

How much change does Dev get?

Answer: £___

**(2)**


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**7** A rectangle is 32 m long and 19 m wide.

What is its perimeter?

Answer: ___ m

**(1)**

---

**8** Explain whether two different shapes can have the same perimeter but different areas. Give an example or a reason.

**(2)**

---

**9** A rectilinear shape has three known side lengths on the outer boundary: 10 cm, 3 cm and 2 cm. The other three outer sides are equal in length. The perimeter is 30 cm. Find the length of each of the three equal sides.

**(2)**

---

**10** A rectangle measures 6 cm by 4 cm. A boarder 1 cm wide is added all the way around (outside the rectangle). What is the new perimeter of the larger rectangle?

**(2)**

---

**11** A hall measures 3 m by 4 m. School tiles are 1 m by 1 m squares. How many tiles are needed to cover the whole hall? Show your working.

**(2)**


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**12** A rectangle has area 24 cm² and one side is 6 cm. Find the length of the other side.

Diagram NOT accurately drawn



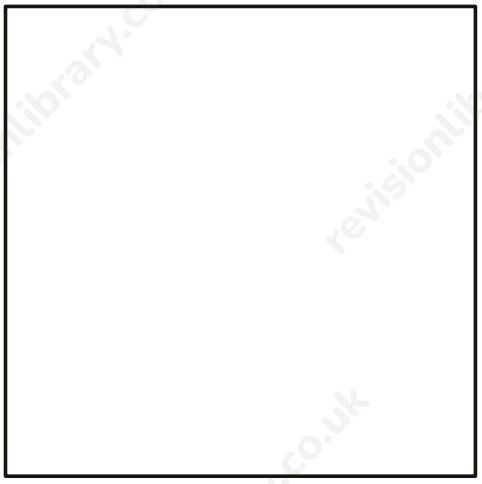
6 cm

**(1)**

---

**13** A square has side length 9 cm. Write down its perimeter.

Diagram NOT accurately drawn



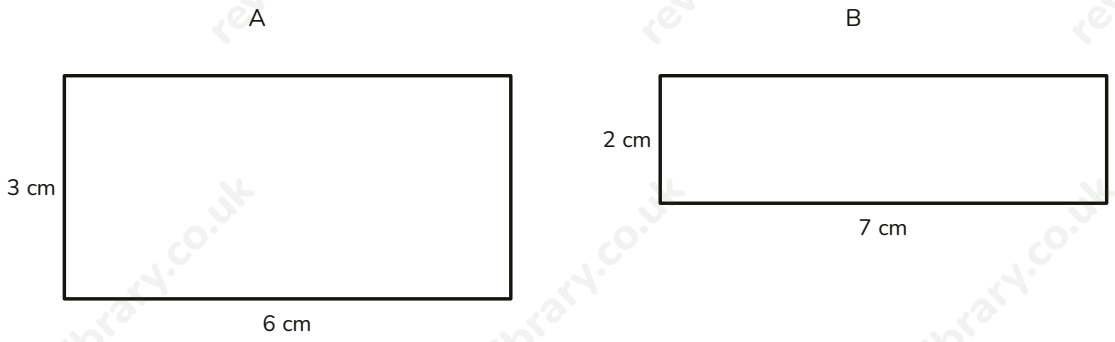
9 cm

**(1)**


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**14** Two rectangles are shown. Rectangle A is 6 cm by 3 cm. Rectangle B is 7 cm by 2 cm. Which rectangle has the larger area and which has the larger perimeter? Show working to justify both answers.

Diagram NOT accurately drawn




**(3)**

**15** A rectangle is 8 mm long and 13 mm wide.

What is its area in square millimetres?

Answer: ___

**(1)**


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**16** A rectangle measures 6 m by 5 m. A smaller rectangle 4 m by 2 m is cut out of one corner.

What is the area of the shape that is left, in square metres?

Answer: ___

**(3)**

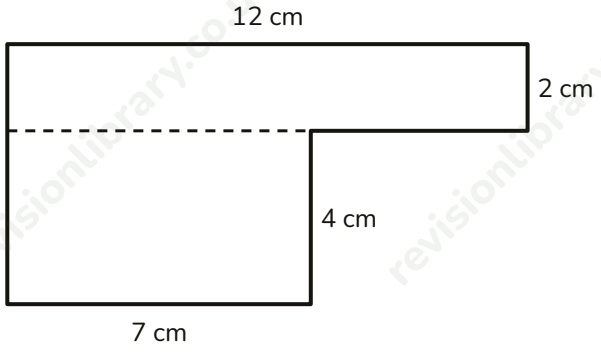
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**17** An L-shape is made from two rectangles joined together. The first rectangle is 12 cm by 2 cm. The second is 7 cm by 4 cm.

What is the total area of the L-shape in square centimetres?

Answer: ___

Diagram NOT accurately drawn




**(3)**

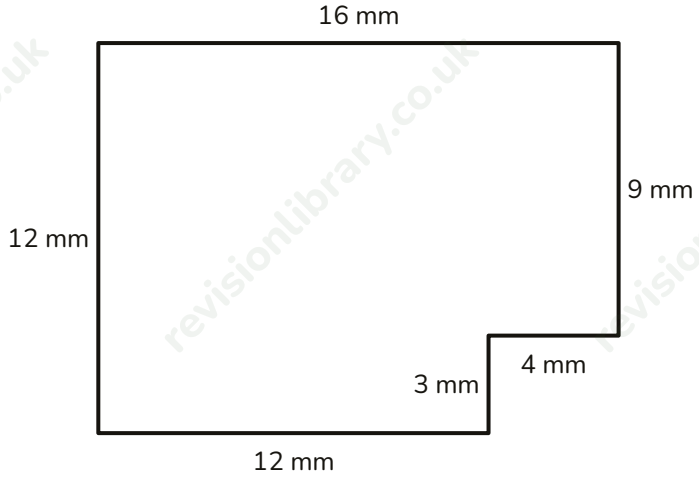

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**18** An L-shaped floor has these sides in order around the shape: 16 mm, 9 mm, 4 mm, 3 mm, 12 mm, 12 mm.

What is the perimeter of the floor?

Answer: ___ mm

Diagram NOT accurately drawn



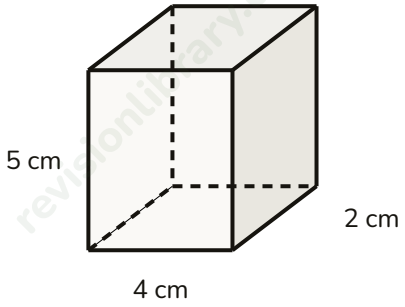

**(1)**

**19** A box is 4 cm long, 2 cm wide and 5 cm high. It is filled with 1 cm cubes.

How many cubes are needed to fill the box?

Answer: ___

Diagram NOT accurately drawn




**(1)**


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**20** A square has sides of length 25 cm.

What is its area in square centimetres?

Answer: ___

Diagram NOT accurately drawn



25 cm

**(1)**

**21** A shape on a 1 cm grid is made from two rectangles. One is 4 by 3 and the other is 3 by 2. They are joined edge to edge with no overlap, along an edge of length 2 cm. Work out the area of the combined shape in square centimetres.

**(2)**


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**22** A square has sides of length 55 mm.

What is its perimeter?

Answer: ___ mm

Diagram NOT accurately drawn



55 mm

**(1)**

**23** Gift bags cost £7.23 each. Tom buys 3.

How much does Tom pay?

Answer: £___

**(2)**


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**24** A regular decagon has sides of length 8 m.

What is its perimeter?

Answer: ___ m

**(2)**

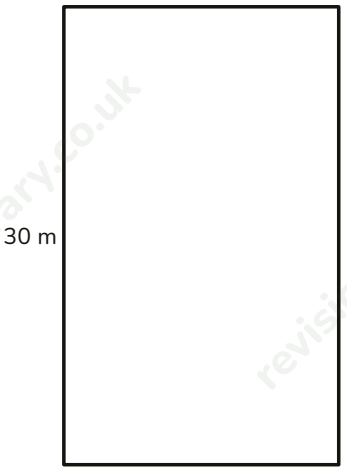
---

**25** A rectangle has an area of 90 square metres. Its length is 30 m.

What is its width?

Answer: ___ m

Diagram NOT accurately drawn




**(1)**

---

**26** A regular decagon has sides of length 19 cm.

What is its perimeter?

Answer: ___ cm

**(1)**


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**27** A square has area 49 cm². What is the length of one side of the square?

Diagram NOT accurately drawn



Area = 49 cm²

**(1)**

---

**28** A rectangle is 26 m long and 18 m wide.

What is its area in square metres?

Answer: ___

**(1)**


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# Mark scheme · 7.6 Perimeter and Area: Test Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

### Question 1

| | |
|---|---|
| Perimeter 34 cm cao | B1 |

Answer: **34 cm**

### Question 2

| | |
|---|---|
| 8.84 x 4 method seen | M1 |
| £35.36 cao | A1 |

Answer: **£35.36**

### Question 3

| | |
|---|---|
| adds all four sides or doubles l + w | M1 |
| 118 cm cao | A1 |

Answer: **118 cm**

### Question 4

| | |
|---|---|
| 52 cm cao | B1 |

Answer: **52 cm**

### Question 5

| | |
|---|---|
| 2.63 x 6 = 15.78 seen | M1 |
| £4.22 cao | A1 |

Answer: **£4.22**

### Question 6

| | |
|---|---|
| 3.81 x 7 = 26.67 seen | M1 |
| £13.33 cao | A1 |

Answer: **£13.33**

### Question 7

| | |
|---|---|
| 102 m cao | B1 |

Answer: **102 m**

### Question 8

| | |
|---|---|
| Statement that shapes can have same perimeter but different areas | B1 |
| Reason or valid example: a 6 cm by 2 cm rectangle and a 5 cm by 3 cm rectangle both have perimeter 16 cm, but areas 12 cm² and 15 cm² respectively | B1 |

Answer: **Yes. For example, a 6 by 2 rectangle and a 5 by 3 rectangle both have perimeter 16 cm, but areas 12 cm² and 15 cm² so areas differ.**

### Question 9

| | |
|---|---|
| Method: subtract known sides 10+3+2 = 15 from 30 to get 15, then divide by 3 | M1 |
| Each equal side is 5 cm cao | B1 |

Answer: **5 cm**

### Question 10

| | |
|---|---|
| New dimensions 8 by 6 found by adding 1 cm each side to length and width | M1 |
| Perimeter 28 cm cao | B1 |

Answer: **28 cm**

### Question 11

| | |
|---|---|
| Method to multiply 3 x 4 to find area in square metres | M1 |
| 12 tiles cao | B1 |

Answer: **12**

### Question 12

| | |
|---|---|
| 4 cm cao | B1 |

Answer: **4 cm**

### Question 13

| | |
|---|---|
| Perimeter 36 cm cao | B1 |

Answer: **36 cm**

### Question 14

| | |
|---|---|
| Correct area calculations: A = 6x3 = 18 and B = 7x2 = 14, or equivalent | M1 |
| Correct perimeter calculations: Perimeter A = 2x(6+3) = 18 and Perimeter B = 2x(7+2) = 18 | M1 |
| Answer stating A has larger area (18 > 14) and perimeters are equal (18 cm) cao | B1 |

Answer: **Rectangle A has larger area; both have equal perimeter 18 cm.**

### Question 15

| | |
|---|---|
| 104 square millimetres cao | B1 |

Answer: **104 square millimetres**

### Question 16

| | |
|---|---|
| finds both areas | M1 |
| subtracts | M1 |
| 22 square metres cao | A1 |

Answer: **22 square metres**

### Question 17

| | |
|---|---|
| finds the area of each rectangle | M1 |
| adds the two areas | M1 |
| 52 square centimetres cao | A1 |

Answer: **52 square centimetres**

### Question 18

| | |
|---|---|
| 56 mm cao | B1 |

Answer: **56 mm**

### Question 19

| | |
|---|---|
| 40 cao | B1 |

Answer: **40**

### Question 20

| | |
|---|---|
| 625 square centimetres cao | B1 |

Answer: **625 square centimetres**


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## Question 21

| | |
|---|---|
| Method adding areas 4x3 + 3x2 or 12 + 6 (no overlap to subtract, as the rectangles only share a boundary edge) | **M1** |
| 18 cm² cao | **B1** |

Answer: **18 cm²**

## Question 22

| | |
|---|---|
| 220 mm cao | **B1** |

Answer: **220 mm**

## Question 23

| | |
|---|---|
| 7.23 x 3 method seen | **M1** |
| £21.69 cao | **A1** |

Answer: **£21.69**

## Question 24

| | |
|---|---|
| 10 x 8 | **M1** |
| 80 m cao | **A1** |

Answer: **80 m**

## Question 25

| | |
|---|---|
| 3 m cao | **B1** |

Answer: **3 m**

## Question 26

| | |
|---|---|
| 190 cm cao | **B1** |

Answer: **190 cm**

## Question 27

| | |
|---|---|
| 7 cm cao | **B1** |

Answer: **7 cm**

## Question 28

| | |
|---|---|
| 468 square metres cao | **B1** |

Answer: **468 square metres**


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