Year 4 maths: Perimeter of shapes made from rectangles (Medium)

Maths · Measurement · Level: Medium

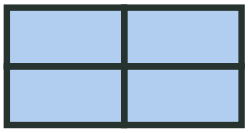
Student: _____ Date: _____

Instructions
- There are 10 questions. Read each one carefully.
- Write your answers on this paper. Use the space under a question to work it out.
- A grown-up can read a question aloud — that's fine.
- The answers are at the end. Check them together when you have finished.

Questions

1. Four tiles, each 6 cm long and 3 cm wide, make a block 2 across and 2 down. What is the perimeter of the block?

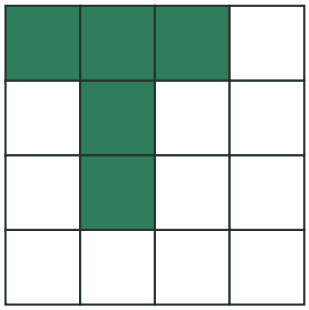
Answer: _____ cm



Working:

2. Each small square is 2 cm long. What is the perimeter of the shaded shape?

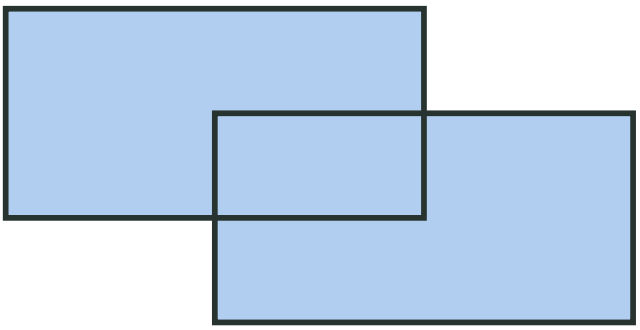
Answer: _____ cm



Working:

3. Two identical rectangles, each 8 cm long and 4 cm wide, overlap. A corner of each is at the exact centre of the other. What is the perimeter of the outline?

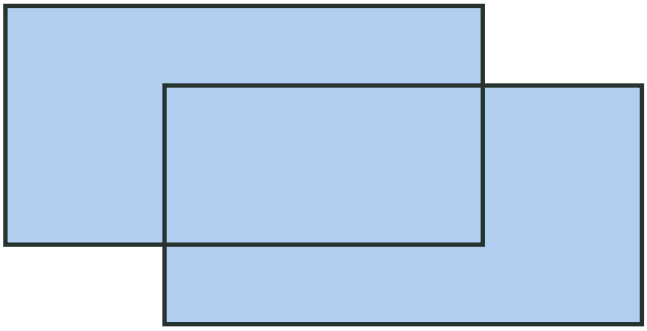
Answer: ☐ cm



Working:

4. Two garden beds, each 12 m long and 6 m wide, overlap. The second is moved 4 m across and 2 m down. What is the perimeter of the outline?

Circle one answer.



○ **A** 72 m ○ **B** 24 m ○ **C** 48 m ○ **D** 60 m

5. A rectangular oval is 40 m long and 10 m wide. Harper runs around it 3 times. How far does she run?

Answer: ☐ m

Working:

6. Four squares with 2 cm sides are joined in a row. What is the perimeter of the row?

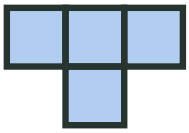
Circle one answer.



○ **A** 16 cm ○ **B** 20 cm ○ **C** 32 cm

7. Four squares with 1 cm sides make this T shape. What is its perimeter?

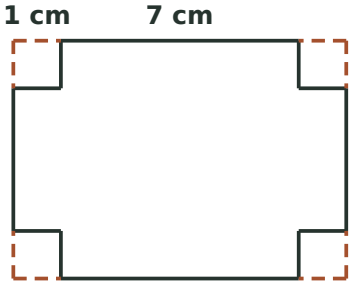
Circle one answer.



○ **A** 16 cm ○ **B** 10 cm ○ **C** 8 cm ○ **D** 4 cm

8. A 7 cm by 5 cm rectangle has a 1 cm square cut from each of its four corners. What is the perimeter of the new shape?

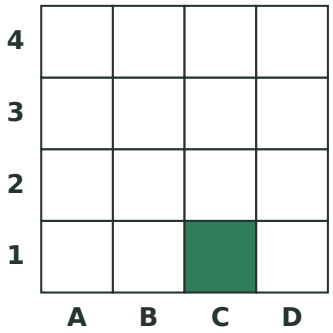
Circle one answer.



○ **A** 24 cm ○ **B** 32 cm ○ **C** 16 cm ○ **D** 31 cm

9. Each small square is 1 cm. Ben cuts out the shaded square. What is the perimeter of the shape that is left?

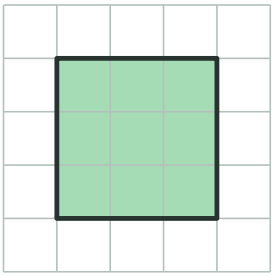
Circle one answer.



○ **A** 15 cm ○ **B** 16 cm ○ **C** 17 cm ○ **D** 18 cm

10. A square is drawn on the grid. Its perimeter is 48 cm. How long is one grid side?

Circle one answer.



○ **A** 1 cm ○ **B** 4 cm ○ **C** 16 cm ○ **D** 12 cm

Answer key

Year 4 maths: Perimeter of shapes made from rectangles (Medium) · Sheet 183794

1. 36 cm

The block is 6 + 6 = 12 cm long and 3 + 3 = 6 cm tall. 12 + 6 + 12 + 6 = 36 cm.

2. 24 cm

There are 12 square edges around the outside. Each is 2 cm: 12 × 2 = 24 cm.

3. 36 cm

The second is moved 4 cm across and 2 cm down. The outline fits a box 12 cm by 6 cm: 12 + 6 + 12 + 6 = 36 cm.

4. C — 48 m

The outline fits a box 12 + 4 = 16 m long and 6 + 2 = 8 m wide: 16 + 8 + 16 + 8 = 48 m.

5. 300 m

One lap: 40 + 10 + 40 + 10 = 100 m. Three laps: 300 m.

6. B — 20 cm

Round the outside: 4 + 4 + 1 + 1 = 10 sides. 10 × 2 = 20 cm.

7. B — 10 cm

Walk round the outside: 3 along the top, then 1, 1, 1, 1, 1, 1 and 1 back up. That is 10 edges of 1 cm, so 10 cm.

8. A — 24 cm

Each cut swaps 2 cm of edge for 2 cm of new edge. 7 + 5 + 7 + 5 = 24 cm.

9. D — 18 cm

The square's perimeter is 4 + 4 + 4 + 4 = 16 cm. The shaded square is on the edge but not at a corner: you lose 1 cm of edge and gain 3 cm. 16 − 1 + 3 = 18 cm.

10. B — 4 cm

The square is 3 grid sides wide, so 3 + 3 + 3 + 3 = 12 grid sides go round. 48 ÷ 12 = 4 cm.