



WORKSHEET 29

Perimeter - Basic Shapes

Year 5 Mathematics — Measurement Strand

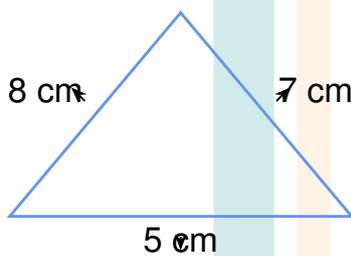
Australian Curriculum v9.0 — AC9M5M02

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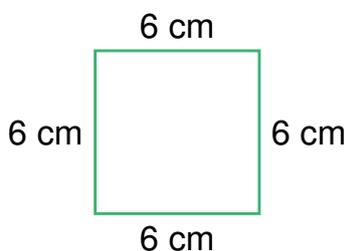
Section 1: Fluency - Addition Method

Question 1: Find the perimeter of this triangle by adding all the sides together.



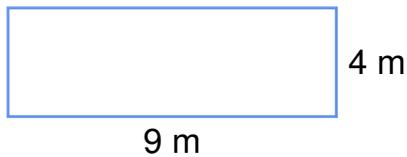
Answer: _____

Question 2: Calculate the perimeter of this square.



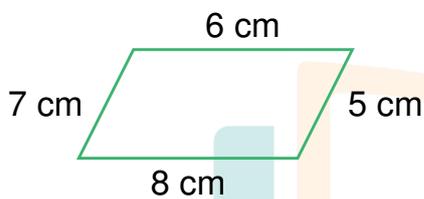
Answer: _____

Question 3: Find the perimeter of this rectangle.



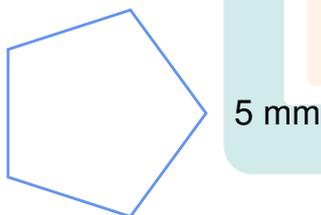
Answer: _____

Question 4: Add all the sides to find the perimeter of this shape.



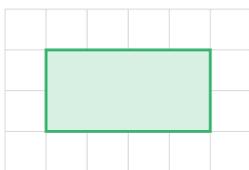
Answer: _____

Question 5: What is the perimeter of this pentagon? (All sides are equal)



Answer: _____

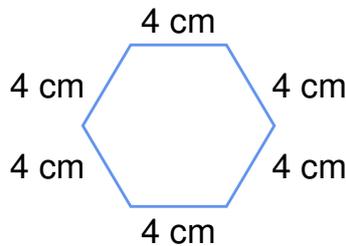
Question 6: Calculate the perimeter by counting the units around this shape on the grid. (Each square = 1 cm)





Answer: _____

Question 7: Find the perimeter of this hexagon.



Answer: _____



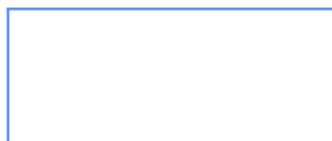
Boundary Bear Says:

“You’re a Perimeter Pro!”

Joke Time: Why was the perimeter so good at its job?
Because it always hung around the edges!

Section 2: Reasoning - Rectangles and Squares

Question 8: Use the formula $(2 \times \text{Length}) + (2 \times \text{Width})$ to find the perimeter of this rectangle.



Width = 5 m

Length = 12 m

$$P = 2L + 2W$$

Answer: _____



Question 9: A square has sides of 7 cm. Use the formula $P = 4 \times \text{side}$ to find the perimeter.

Answer: _____

Question 10: Calculate the perimeter using the formula: Rectangle with Length = 15 mm, Width = 8 mm.

Answer: _____

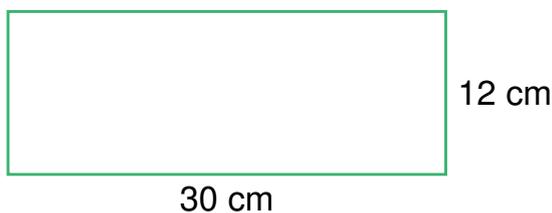
Question 11: A rectangular field is 25 m long and 18 m wide. What is its perimeter?

Answer: _____

Question 12: A square playground has sides of 20 m. Calculate the perimeter.

Answer: _____

Question 13: Look at this rectangle. Calculate the perimeter.



Answer: _____

Question 14: Which has a greater perimeter: a square with sides of 8 m, or a rectangle that is 10 m long and 6 m wide?



Answer: _____



Formula Fox Says:

“You’re Using Formulas Fantastically!”

Joke Time: Why did the rectangle go to the gym?
To work on its perimeter!

Section 3: Challenge - Missing Sides

Question 15: A square has a perimeter of 20 cm. What is the length of one of its sides?

Answer: _____

Question 16: A rectangle has a perimeter of 30 m. If the length is 10 m, what is the width?

Answer: _____

Question 17: An equilateral triangle has a perimeter of 27 cm. What is the length of each side?

Answer: _____

Question 18: A regular pentagon (all sides equal) has a perimeter of 45 mm. What is the length of one side?

Answer: _____



Question 19: The perimeter of a rectangle is 48 cm. If the width is 8 cm, what is the length?

Answer: _____

Question 20: A square garden bed has a perimeter of 36 m. How long is each side?

Answer: _____

Question 21: Three sides of a quadrilateral are 5 cm, 7 cm, and 6 cm. If the perimeter is 24 cm, what is the length of the fourth side?

Answer: _____

Question 22: A rectangle is twice as long as it is wide. If the width is 4 m, what is the perimeter?

Answer: _____



Detective Dog Says:

“You’re Solving Missing Sides!”

Joke Time: Why did the perimeter become a detective?
Because it was good at finding what’s missing!

Excellent work! Check your answers on the next page.



WORKSHEET 29

ANSWER KEY

Section 1: Fluency - Addition Method

1. 20 cm ($5 + 7 + 8 = 20$)
2. 24 cm ($6 + 6 + 6 + 6 = 24$)
3. 26 m ($9 + 4 + 9 + 4 = 26$)
4. 26 cm ($8 + 5 + 6 + 7 = 26$)
5. 25 mm ($5 \times 5 = 25$)
6. 12 cm (counting around: $4 + 2 + 4 + 2 = 12$)
7. 24 cm ($4 \times 6 = 24$)

Section 2: Reasoning - Rectangles and Squares

8. 34 m ($2 \times 12 + 2 \times 5 = 24 + 10 = 34$)
9. 28 cm ($4 \times 7 = 28$)
10. 46 mm ($2 \times 15 + 2 \times 8 = 30 + 16 = 46$)
11. 86 m ($2 \times 25 + 2 \times 18 = 50 + 36 = 86$)
12. 80 m ($4 \times 20 = 80$)
13. 84 cm ($2 \times 30 + 2 \times 12 = 60 + 24 = 84$)
14. They are equal. Square: 32 m (4×8); Rectangle: 32 m ($2 \times 10 + 2 \times 6$)

Section 3: Challenge - Missing Sides

15. 5 cm ($20 \div 4 = 5$)
16. 5 m (Perimeter = 30, so $2L + 2W = 30$; $20 + 2W = 30$; $2W = 10$; $W = 5$)
17. 9 cm ($27 \div 3 = 9$)
18. 9 mm ($45 \div 5 = 9$)
19. 16 cm ($48 = 2L + 16$; $2L = 32$; $L = 16$)
20. 9 m ($36 \div 4 = 9$)
21. 6 cm ($24 - 5 - 7 - 6 = 6$)
22. 24 m (Width = 4 m, Length = 8 m; $2 \times 8 + 2 \times 4 = 16 + 8 = 24$)



WORKSHEET 30

Perimeter - Practical Problems

Year 5 Mathematics — Measurement Strand

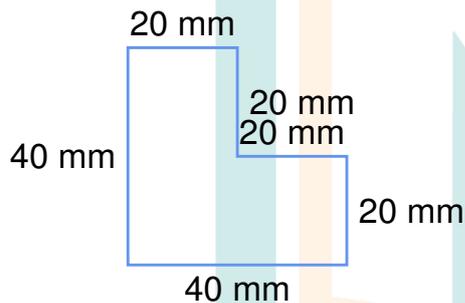
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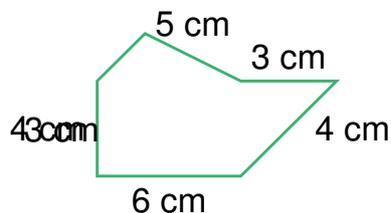
Section 1: Fluency - Irregular Polygons

Question 1: Calculate the total perimeter of this L-shaped figure.



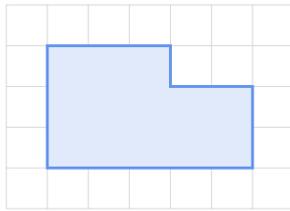
Answer: _____

Question 2: Find the perimeter of this irregular shape.



Answer: _____

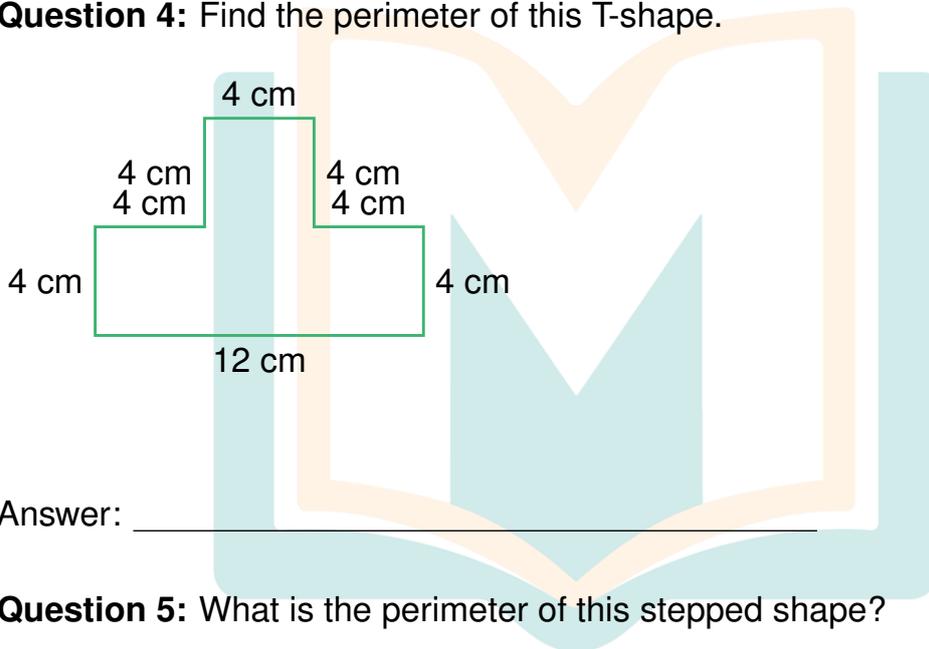
Question 3: Calculate the perimeter of this composite shape.



Count the outside edges (each square = 1 m)

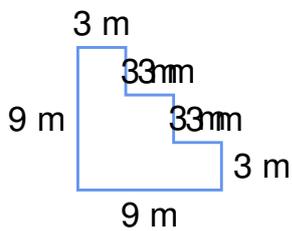
Answer: _____

Question 4: Find the perimeter of this T-shape.



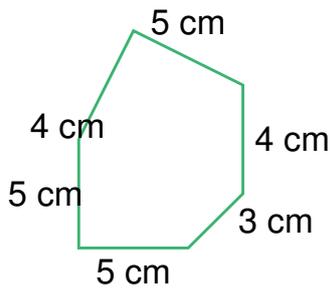
Answer: _____

Question 5: What is the perimeter of this stepped shape?



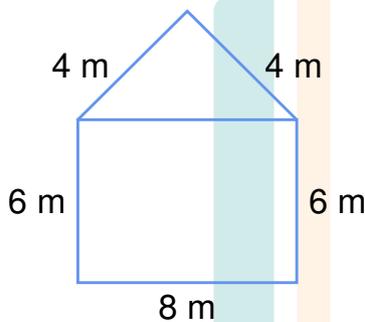
Answer: _____

Question 6: Calculate the perimeter of this polygon.



Answer: _____

Question 7: Find the perimeter of this house-shaped figure.



Answer: _____

Irregular Iguana Says:



“You’re an Irregular Shape Expert!”

Joke Time: Why did the irregular shape go to art class?
To learn how to draw outside the lines!

Section 2: Reasoning - Units of Measure

Question 8: One side of a rectangle is 2 m. The other side is 50 cm. What is the perimeter in centimetres?



Answer: _____

Question 9: A square has sides of 0.5 m. What is the perimeter in centimetres?

Answer: _____

Question 10: Convert and calculate: A rectangle is 3 m long and 150 cm wide. What is the perimeter in metres?

Answer: _____

Question 11: A triangle has sides of 400 mm, 0.3 m, and 25 cm. What is the perimeter in centimetres?

Answer: _____

Question 12: A rectangular garden is 5.5 m by 250 cm. What is the perimeter in metres?

Answer: _____

Question 13: A square room has sides of 4.2 m. What is the perimeter in:
a) Metres? _____ b) Centimetres? _____

Question 14: Which has a greater perimeter: a square with sides of 80 cm, or a rectangle that is 1 m by 50 cm? (Show working in same units)

Answer: _____



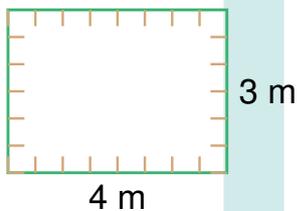
Measuring Meerkat Says:

“You’re Converting Units Like a Pro!”

Joke Time: Why did the metre go to school?
To become a centimetre!

Section 3: Challenge - Real-World Problems

Question 15: A gardener wants to put a fence around a rectangular veggie patch that is 4 m long and 3 m wide. How many metres of fencing does she need to buy?



Answer: _____

Question 16: If the fencing costs \$5 per metre, how much will the total fence cost?

Answer: _____

Question 17: A rectangular swimming pool is 8 m long and 5 m wide. You want to put a safety fence around it, leaving a 1 m gap on all sides. What is the perimeter of the fence? (Hint: The fence goes around a 10 m by 7 m area)

Answer: _____

Question 18: A farmer has 60 m of fencing. What is the largest square



paddock he can fence?

Answer: Each side = _____

Question 19: A picture frame is 40 cm wide and 30 cm tall. The frame itself is 5 cm thick on all sides. What is the perimeter of the outside edge of the frame?

Answer: _____

Question 20: A school playground is rectangular with a perimeter of 200 m. If the length is 60 m, what is the width?

Answer: _____

Question 21: A running track is rectangular with semi-circles at each end. The straight sections are each 100 m. The semi-circles have a diameter of 60 m. Approximately what is the perimeter of the track? (Use $\pi \approx 3.14$)

Answer: _____

Question 22: Two identical square tiles, each with sides of 20 cm, are placed side by side to form a rectangle. What is the perimeter of the rectangle formed?

Answer: _____



Fencing Flamingo Says:

“You’re a Real-World Problem Master!”

Joke Time: Why did the flamingo love perimeter?
Because it was always on the fence about things!

Outstanding work! Check your answers on the next page.





WORKSHEET 30

ANSWER KEY

Section 1: Fluency - Irregular Polygons

- 160 mm ($40 + 20 + 20 + 20 + 20 + 40 = 160$)
- 25 cm ($6 + 4 + 3 + 5 + 4 + 3 = 25$)
- 18 m (counting around the outside: $5 + 2 + 2 + 3 + 3 + 3 = 18$)
- 40 cm ($12 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 40$)
- 36 m ($9 + 3 + 3 + 3 + 3 + 3 + 3 + 9 = 36$)
- 26 cm ($5 + 3 + 4 + 5 + 5 + 4 = 26$)
- 28 m ($8 + 6 + 4 + 4 + 6 = 28$)

Section 2: Reasoning - Units of Measure

- 500 cm ($2 \text{ m} = 200 \text{ cm}$; $2 \times 200 + 2 \times 50 = 400 + 100 = 500$)
- 200 cm ($0.5 \text{ m} = 50 \text{ cm}$; $4 \times 50 = 200$)
- 9 m ($150 \text{ cm} = 1.5 \text{ m}$; $2 \times 3 + 2 \times 1.5 = 6 + 3 = 9$)
- 95 cm ($400 \text{ mm} = 40 \text{ cm}$, $0.3 \text{ m} = 30 \text{ cm}$; $40 + 30 + 25 = 95$)
- 16 m ($250 \text{ cm} = 2.5 \text{ m}$; $2 \times 5.5 + 2 \times 2.5 = 11 + 5 = 16$)
- a) 16.8 m ($4 \times 4.2 = 16.8$); b) 1680 cm
- Square: 320 cm; Rectangle: 300 cm ($100 \text{ cm} + 50 \text{ cm} + 100 \text{ cm} + 50 \text{ cm}$). The square is greater.

Section 3: Challenge - Real-World Problems

- 14 m ($2 \times 4 + 2 \times 3 = 8 + 6 = 14$)
- \$70 ($14 \times 5 = 70$)
- 34 m ($2 \times 10 + 2 \times 7 = 20 + 14 = 34$)
- 15 m per side ($60 \div 4 = 15$)
- 180 cm (Outside dimensions: 50 cm by 40 cm;
 $2 \times 50 + 2 \times 40 = 100 + 80 = 180$)
- 40 m ($200 = 2 \times 60 + 2W$; $200 = 120 + 2W$; $2W = 80$; $W = 40$)
- Approximately 388.4 m (Straight sections: $2 \times 100 = 200 \text{ m}$;
Circumference of full circle with diameter 60 m: $\pi \times 60 \approx 188.4 \text{ m}$; Total:
 $200 + 188.4 = 388.4 \text{ m}$)
- 120 cm (Rectangle dimensions: 40 cm by 20 cm;
 $2 \times 40 + 2 \times 20 = 80 + 40 = 120$)



Superb!

You've mastered Perimeter!
Keep up the outstanding work in Year 5 Maths!

