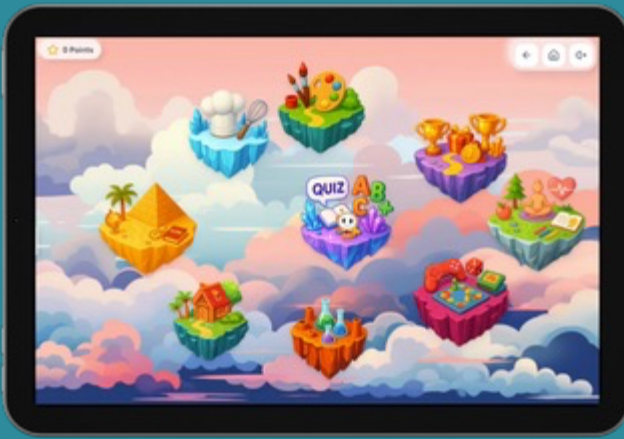


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Perimeter - Year 5

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PERIMETER

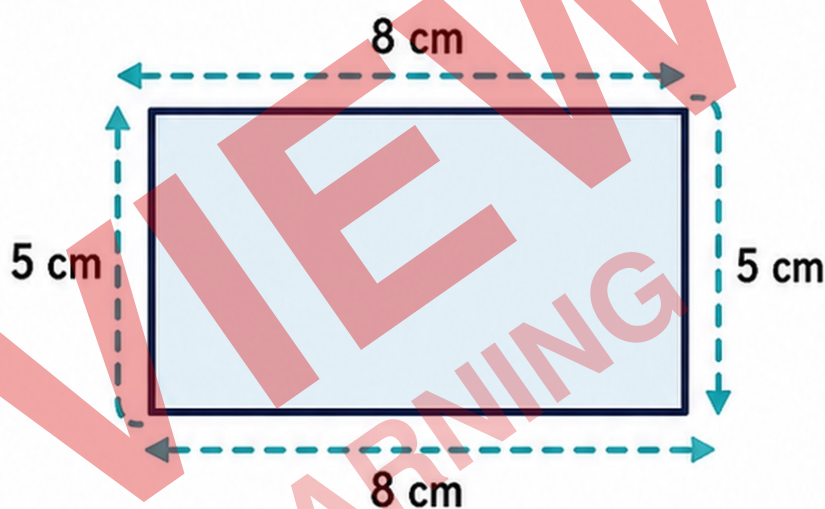
QUICK GUIDE



Perimeter is the distance around the outside of a **shape**.

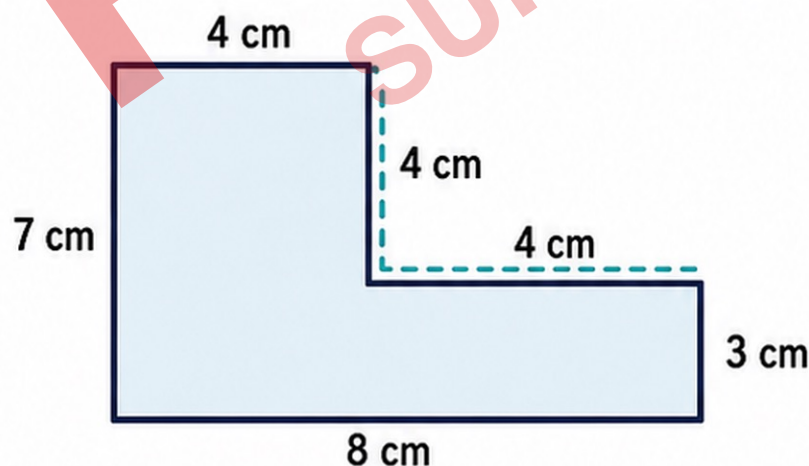
To find perimeter:

1. Read every side length.
2. Add all the side lengths.
3. Include the unit in your answer.



Example: $8\text{ cm} + 5\text{ cm} + 8\text{ cm} + 5\text{ cm} = 26\text{ cm}$

For a **compound shape**: use the known sides to work out any missing side lengths first.



Check: Did I count each outside edge once?

PERIMETER PATHWAY GAME

Name: _____



Players: 2-4

How to play:

1. Roll a die and move along the path.
2. Solve the perimeter card for your space.
3. If your partner agrees, stay there. If not, move back 1 space.
4. First player to finish wins.

Space types:



Rectangle =
add opposite
sides twice

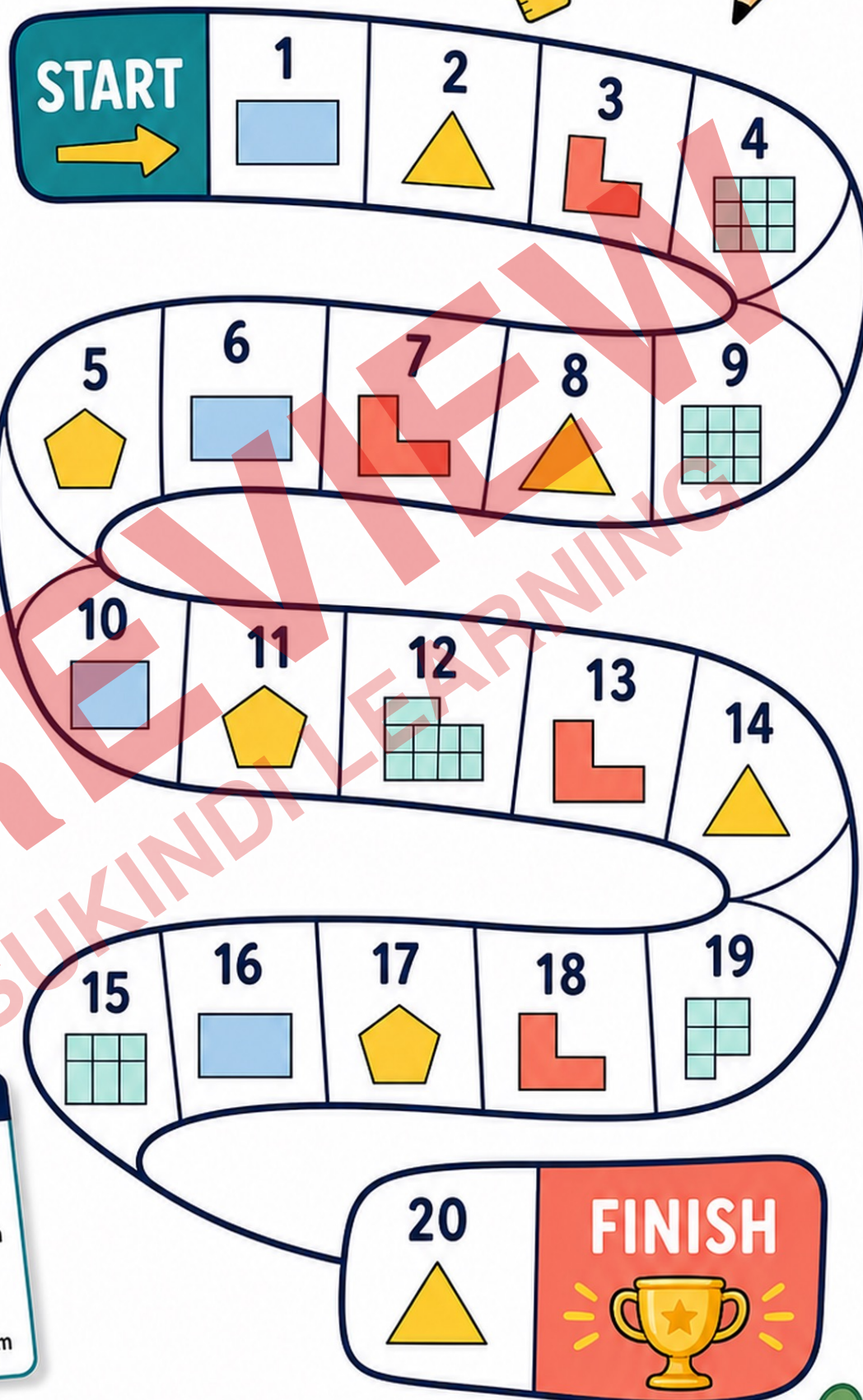
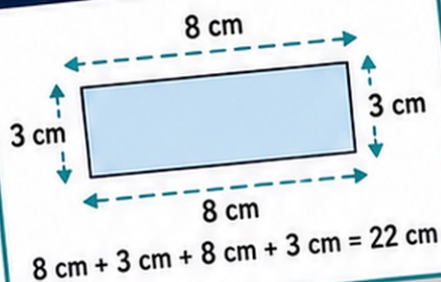


Polygon =
add every side



Compound shape =
find the missing
side first

Perimeter Card Example



DESIGN A SCHOOL GARDEN

Name: _____

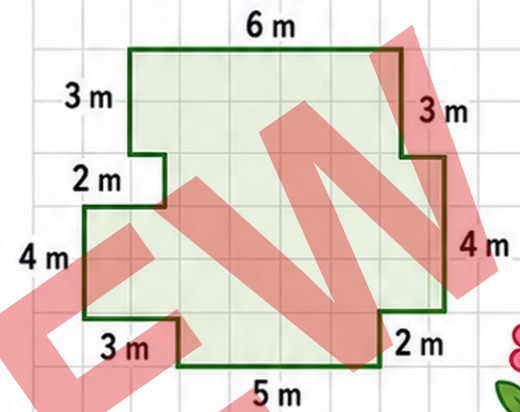


Task: Create a garden plan with a total perimeter between 38 m and 54 m.

Rules:

- Each grid square is 1 m by 1 m.
- Your garden must have at least 8 straight sides.
- Label the length of each outside edge.
- Show your perimeter addition sentence.

sample only



Perimeter calculation:

___ m + ___ m + ___ m + ___ m + ___ m + ___ m + ___ m + ___ m = ___ m

Reflection: How did you know your perimeter matched the target range?

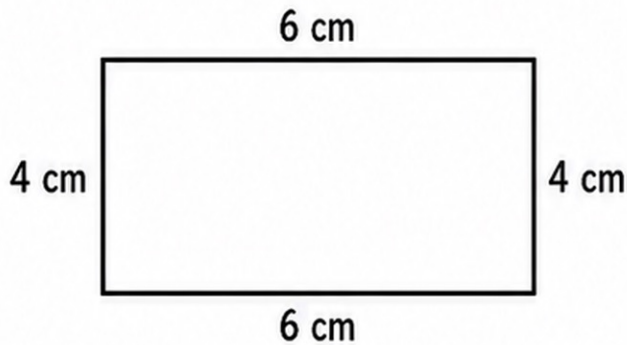


PERIMETER BASICS

Name: _____

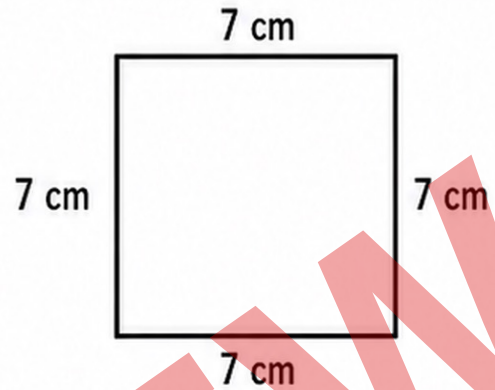
Find the perimeter of each shape. Add every outside side length and include the unit.

1. Rectangle: 6 cm, 4 cm, 6 cm, 4 cm



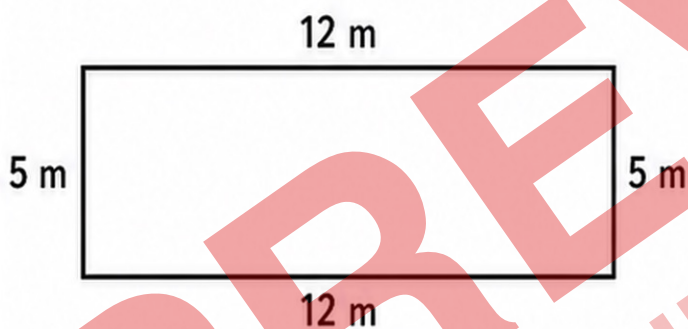
Perimeter = _____ cm

2. Square: each side is 7 cm



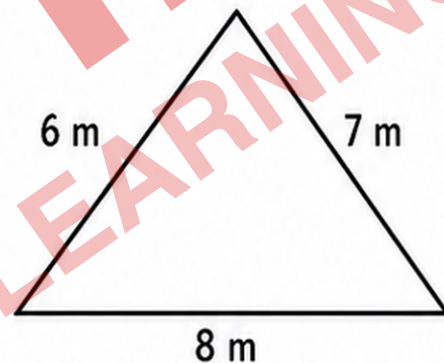
Perimeter = _____ cm

3. Rectangle: 12 m, 5 m, 12 m, 5 m



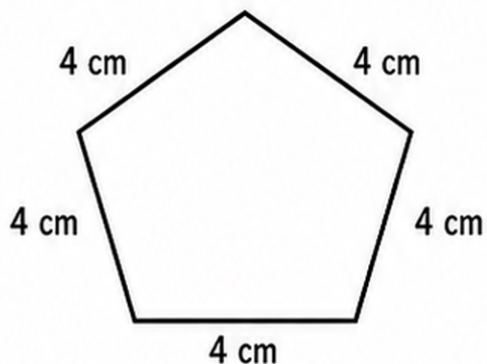
Perimeter = _____ m

4. Triangle: 6 m, 7 m, 8 m



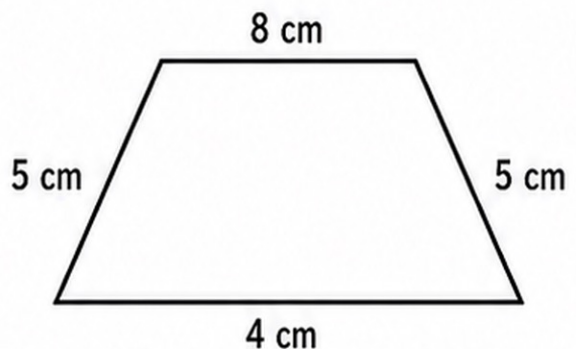
Perimeter = _____ m

5. Pentagon: each side is 4 cm



Perimeter = _____ cm

6. Trapezium: 8 cm, 5 cm, 5 cm, 4 cm



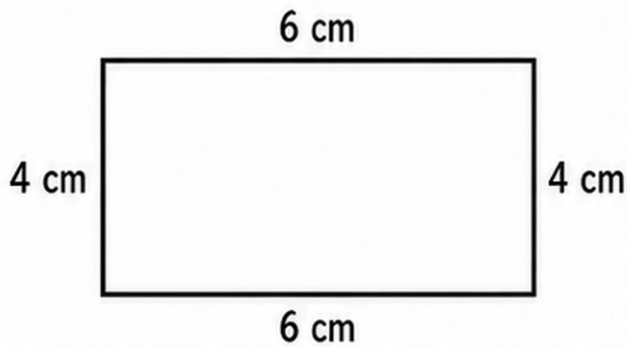
Perimeter = _____ cm

PERIMETER BASICS

Name: **ANSWERS**

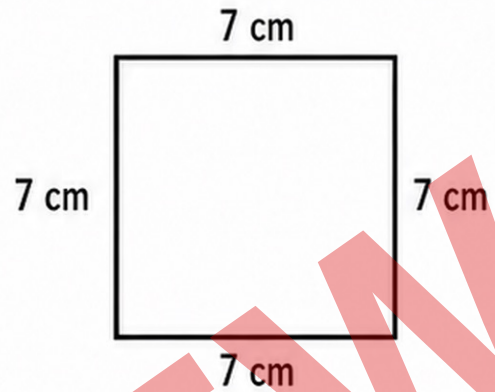
Find the perimeter of each shape. Add every outside side length and include the unit.

1. Rectangle: 6 cm, 4 cm, 6 cm, 4 cm



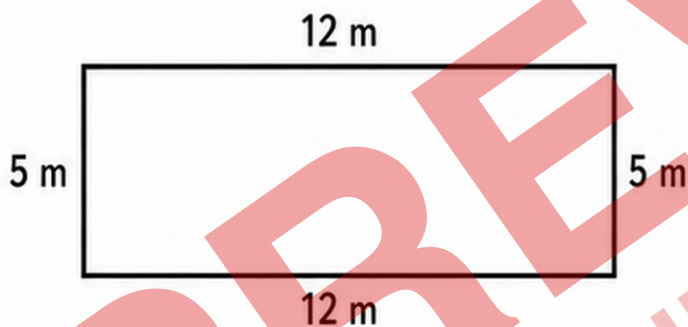
Perimeter = **20** cm

2. Square: each side is 7 cm



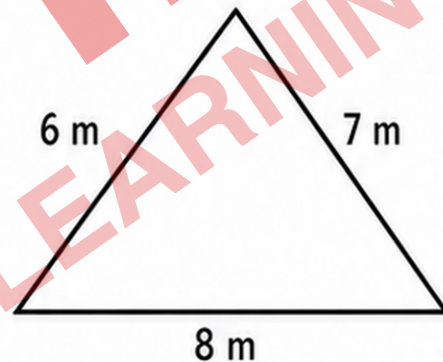
Perimeter = **28** cm

3. Rectangle: 12 m, 5 m, 12 m, 5 m



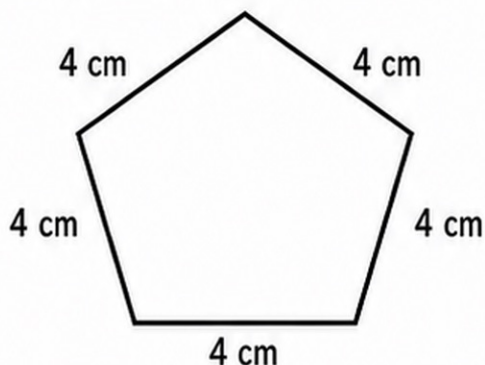
Perimeter = **34** m

4. Triangle: 6 m, 7 m, 8 m



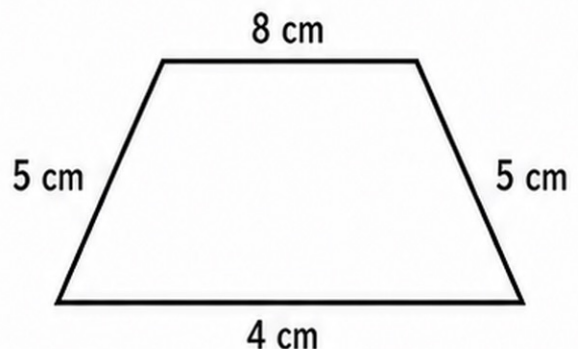
Perimeter = **21** m

5. Pentagon: each side is 4 cm



Perimeter = **20** cm

6. Trapezium: 8 cm, 5 cm, 5 cm, 4 cm



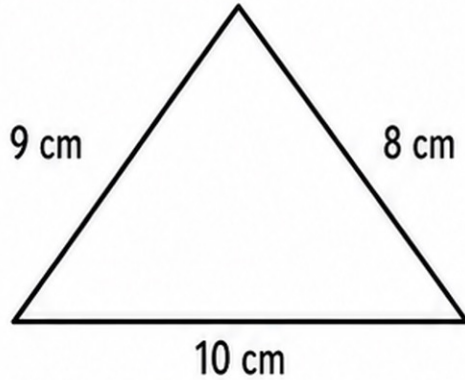
Perimeter = **22** cm

PERIMETER OF POLYGONS

Name: _____

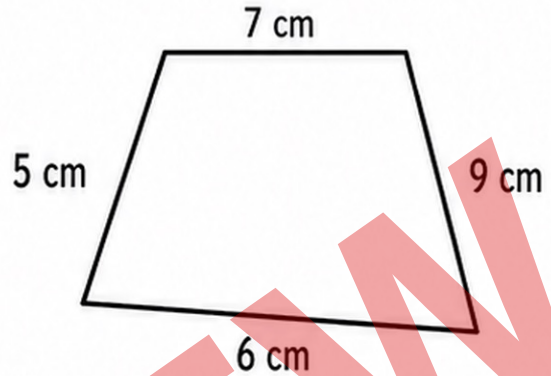
Add every outside side length. Check that each side has been counted once.

1. Triangle: 9 cm, 8 cm, 10 cm



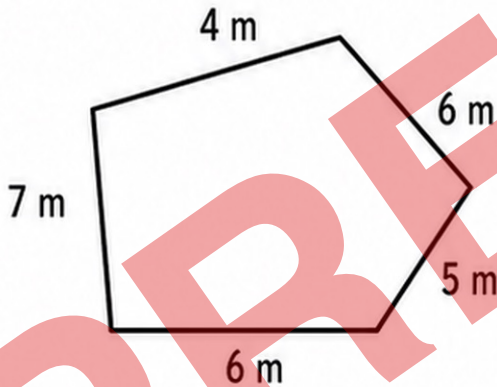
Perimeter = _____ cm

2. Quadrilateral: 7 cm, 5 cm, 9 cm, 6 cm



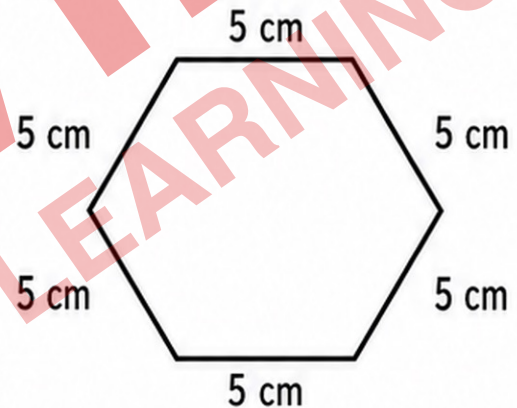
Perimeter = _____ cm

3. Pentagon: 4 m, 6 m, 5 m, 6 m, 7 m



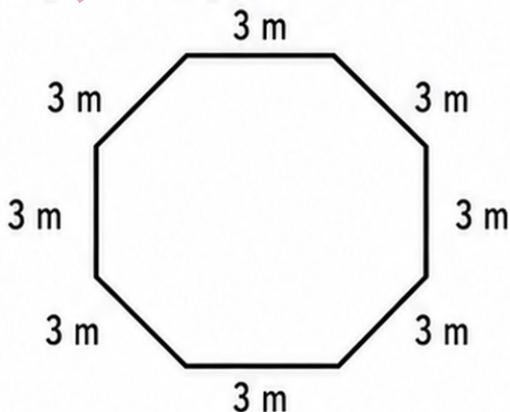
Perimeter = _____ m

4. Regular hexagon: each side is 5 cm



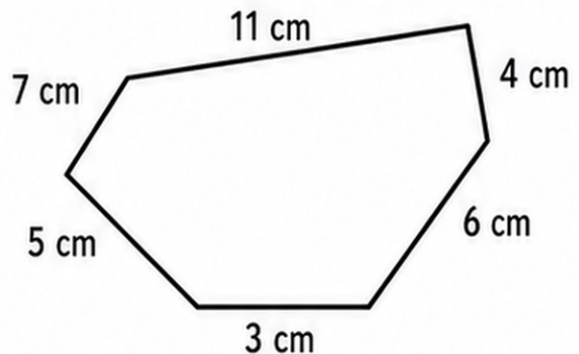
Perimeter = _____ cm

5. Regular octagon: each side is 3 m



Perimeter = _____ m

6. Irregular polygon: 11 cm, 4 cm, 6 cm, 3 cm, 5 cm, 7 cm



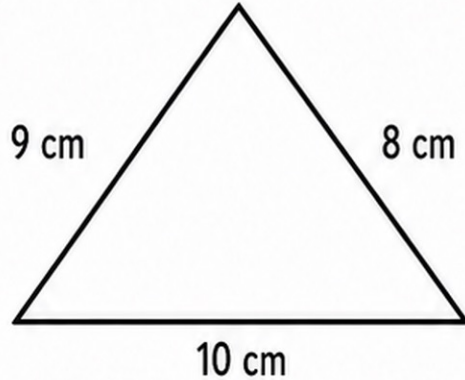
Perimeter = _____ cm

PERIMETER OF POLYGONS

Name: **ANSWERS**

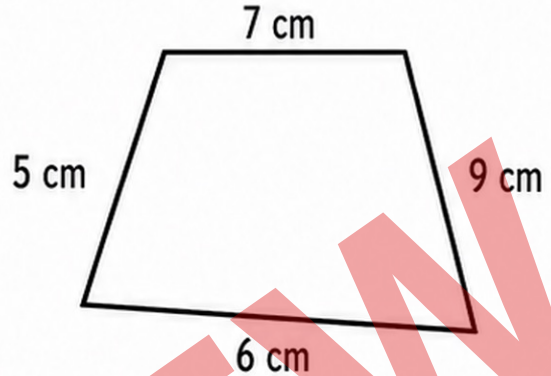
Add every outside side length. Check that each side has been counted once.

1. Triangle: 9 cm, 8 cm, 10 cm



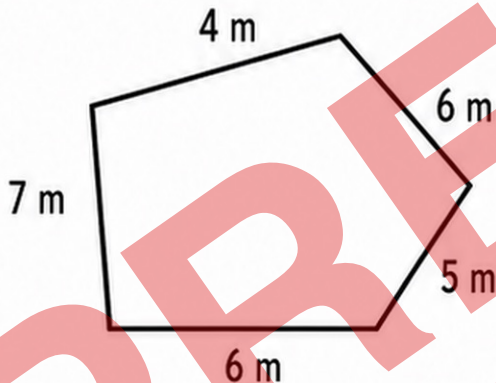
Perimeter = **27** cm

2. Quadrilateral: 7 cm, 5 cm, 9 cm, 6 cm



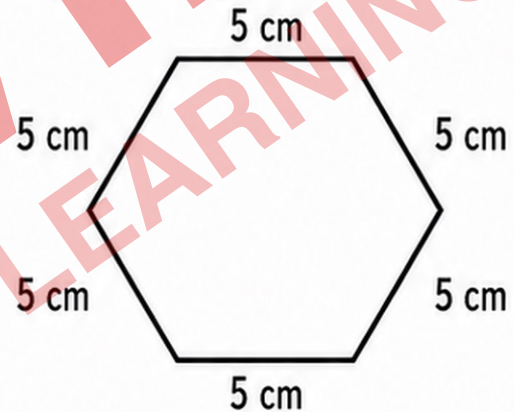
Perimeter = **27** cm

3. Pentagon: 4 m, 6 m, 5 m, 6 m, 7 m



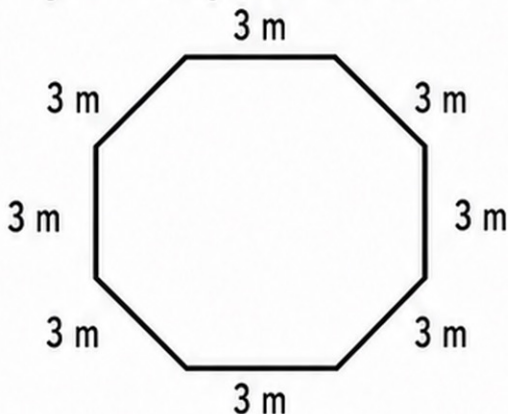
Perimeter = **28** m

4. Regular hexagon: each side is 5 cm



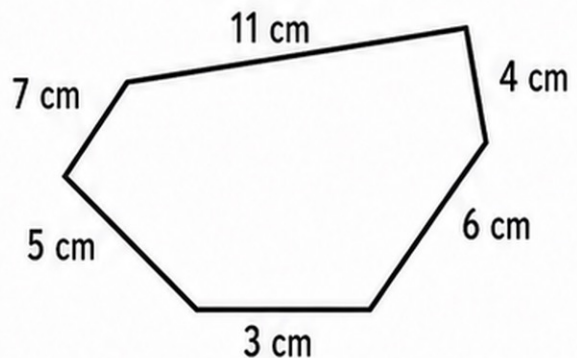
Perimeter = **30** cm

5. Regular octagon: each side is 3 m



Perimeter = **24** m

6. Irregular polygon: 11 cm, 4 cm, 6 cm, 3 cm, 5 cm, 7 cm



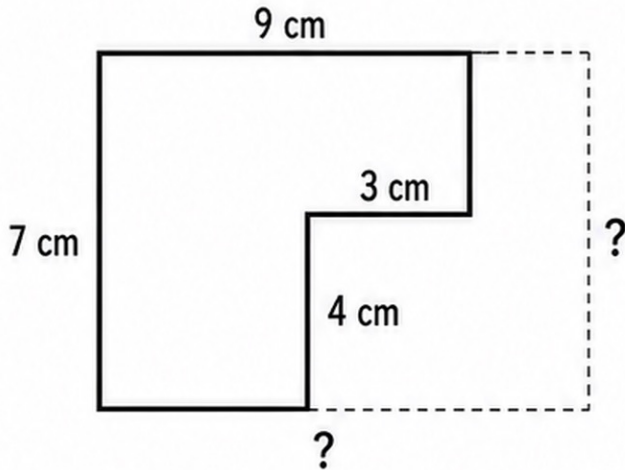
Perimeter = **36** cm

COMPOUND SHAPE PERIMETERS

Name: _____

Work out the missing side lengths first. Then add every outside edge.

1. Known sides: top 9 cm, step 3 cm, inner side 4 cm, left side 7 cm.

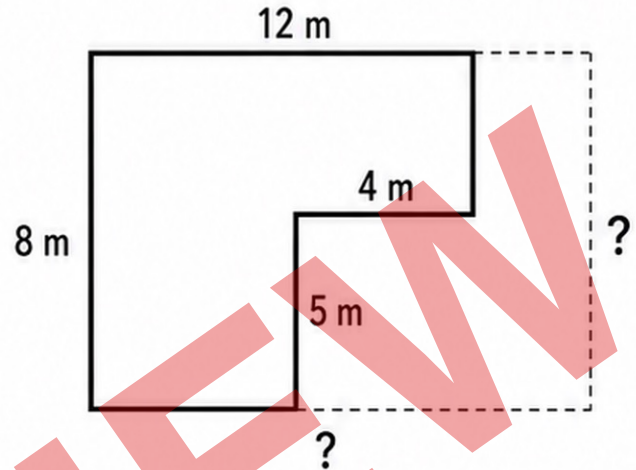


Missing bottom = _____ cm

Missing right side = _____ cm

Perimeter = _____ cm

2. Known sides: top 12 m, step 4 m, inner side 5 m, left side 8 m.

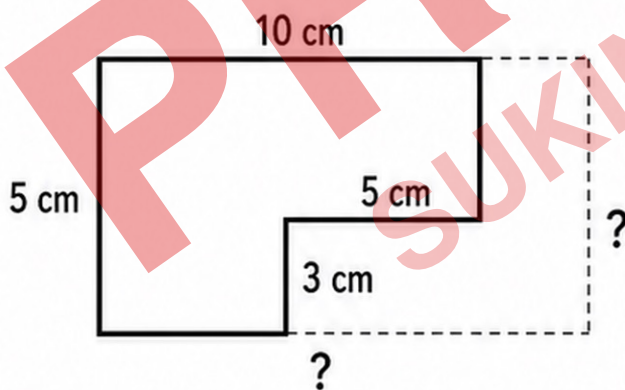


Missing bottom = _____ m

Missing right side = _____ m

Perimeter = _____ m

3. Known sides: top 10 cm, step 5 cm, inner side 3 cm, left side 5 cm.

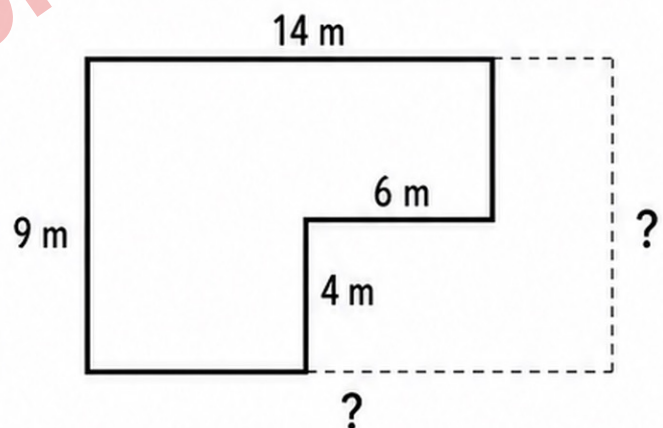


Missing bottom = _____ cm

Missing right side = _____ cm

Perimeter = _____ cm

4. Known sides: top 14 m, step 6 m, inner side 4 m, left side 9 m.



Missing bottom = _____ m

Missing right side = _____ m

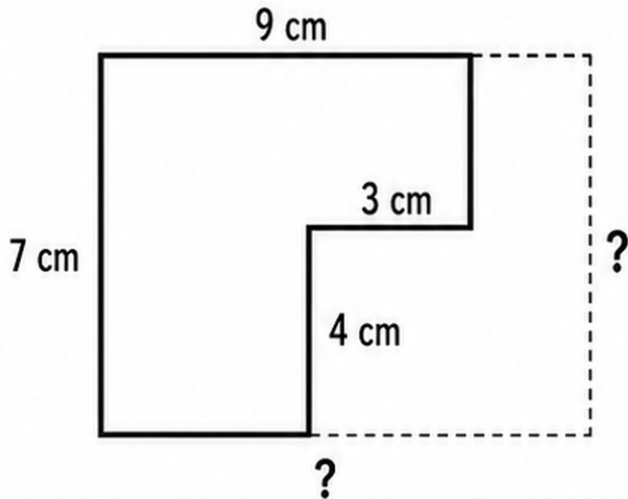
Perimeter = _____ m

COMPOUND SHAPE PERIMETERS

Name: **ANSWERS**

Work out the missing side lengths first. Then add every outside edge.

1. Known sides: top 9 cm, step 3 cm, inner side 4 cm, left side 7 cm.

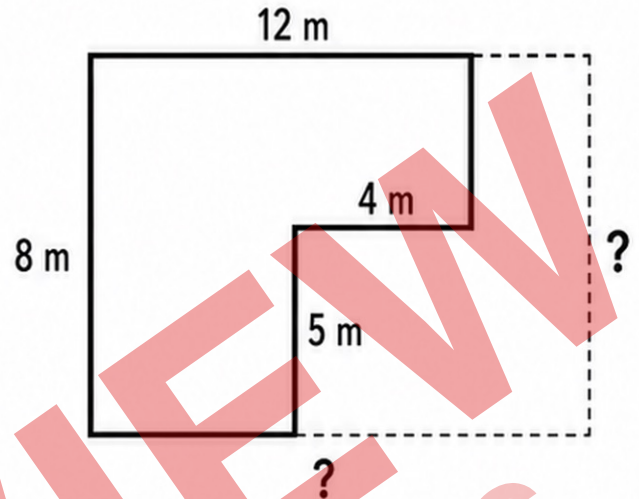


Missing bottom = **6** cm

Missing right side = **3** cm

Perimeter = **32** cm

2. Known sides: top 12 m, step 4 m, inner side 5 m, left side 8 m.

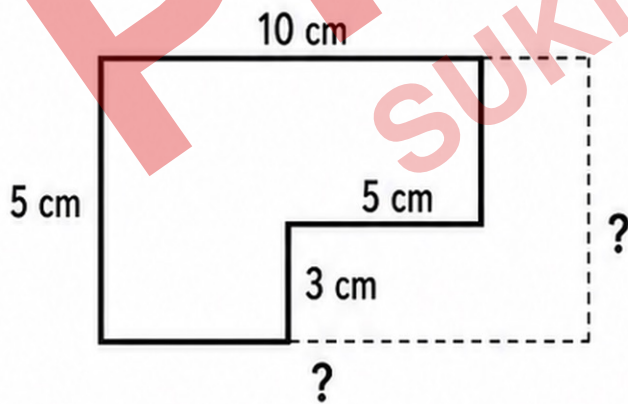


Missing bottom = **8** m

Missing right side = **3** m

Perimeter = **40** m

3. Known sides: top 10 cm, step 5 cm, inner side 3 cm, left side 5 cm.

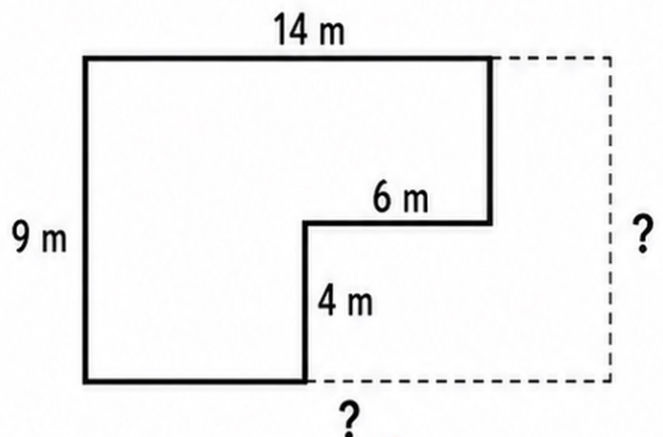


Missing bottom = **5** cm

Missing right side = **2** cm

Perimeter = **30** cm

4. Known sides: top 14 m, step 6 m, inner side 4 m, left side 9 m.



Missing bottom = **8** m

Missing right side = **5** m

Perimeter = **46** m

REAL-WORLD PERIMETER PROBLEMS

Name: _____

Read each problem. Draw or underline the important side lengths, then find the perimeter.

1. A poster is 45 cm long and 30 cm wide. How much ribbon is needed to go once around the poster?



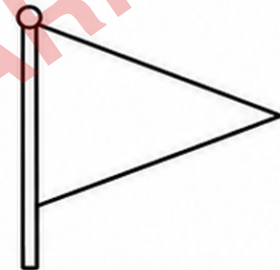
Working: _____ Answer: _____

2. A rectangular chicken run is 12 m long and 8 m wide. How many metres of fencing are needed?



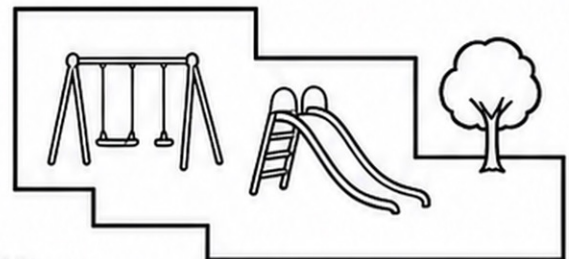
Working: _____ Answer: _____

3. A triangular flag has side lengths of 35 cm, 35 cm and 40 cm. What is the perimeter of the flag?



Working: _____ Answer: _____

4. A school play area has outside edge lengths of 18 m, 6 m, 10 m, 4 m, 8 m and 10 m. What is the total perimeter?



Working: _____ Answer: _____

5. A book cover is 28 cm tall and 21 cm wide. What is the distance around the outside edge?



Working: _____ Answer: _____

REAL-WORLD PERIMETER PROBLEMS

Name: **ANSWERS**

Read each problem. Draw or underline the important side lengths, then find the perimeter.

1. A poster is 45 cm long and 30 cm wide. How much ribbon is needed to go once around the poster?



Working: $45 + 30 + 45 + 30$

Answer: 150 cm

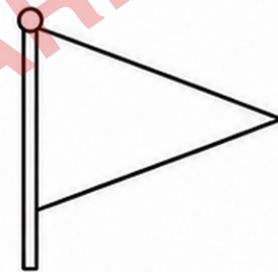
2. A rectangular chicken run is 12 m long and 8 m wide. How many metres of fencing are needed?



Working: $12 + 8 + 12 + 8$

Answer: 40 m

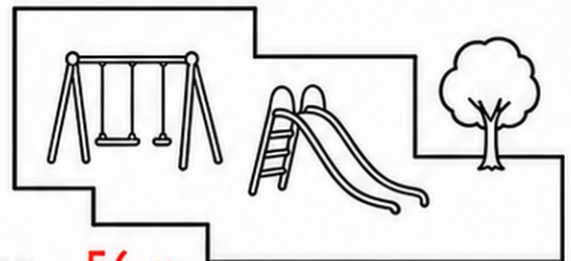
3. A triangular flag has side lengths of 35 cm, 35 cm and 40 cm. What is the perimeter of the flag?



Working: $35 + 35 + 40$

Answer: 110 cm

4. A school play area has outside edge lengths of 18 m, 6 m, 10 m, 4 m, 8 m and 10 m. What is the total perimeter?



Working: $18 + 6 + 10 + 4 + 8 + 10$

Answer: 56 m

5. A book cover is 28 cm tall and 21 cm wide. What is the distance around the outside edge?



Working: $28 + 21 + 28 + 21$

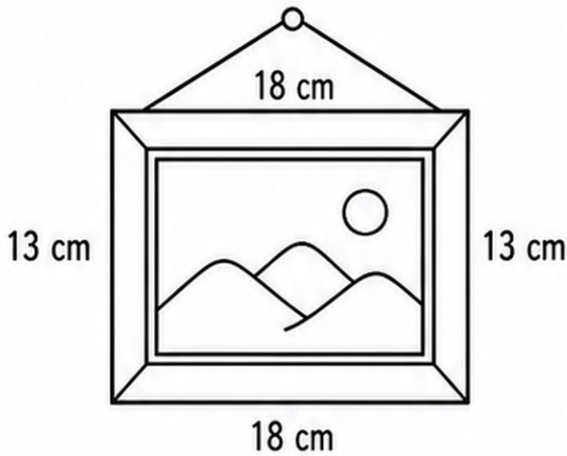
Answer: 98 cm

PERIMETER AROUND US

Name: _____

Find the distance around each everyday object. Add the outside side lengths.

1. Picture frame: 18 cm by 13 cm



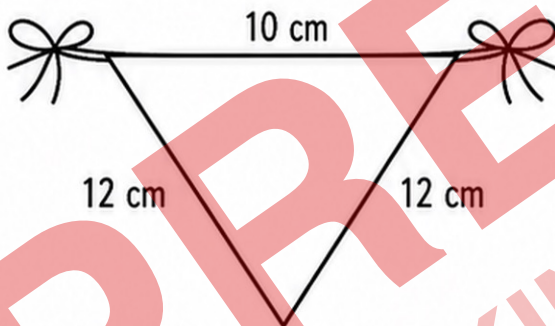
Perimeter = _____ cm

2. Phone case: 15 cm by 7 cm



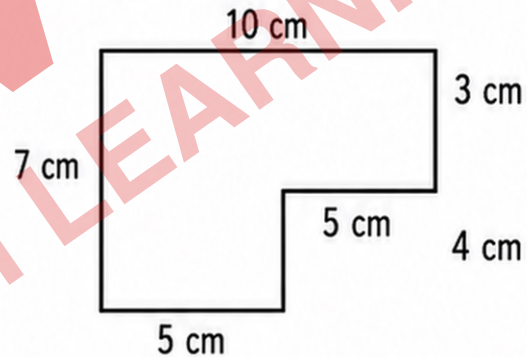
Perimeter = _____ cm

3. Triangular bunting flag: 12 cm, 12 cm, 10 cm



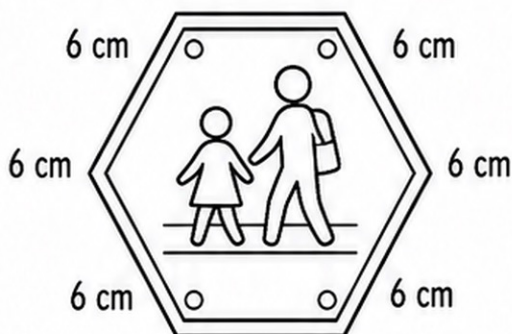
Perimeter = _____ cm

4. L-shaped floor tile: 10 cm, 3 cm, 5 cm, 4 cm, 5 cm, 7 cm



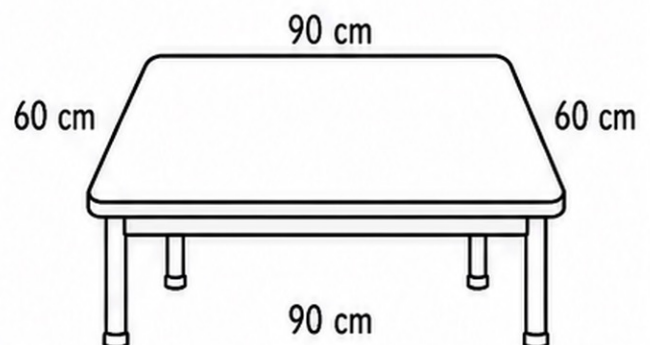
Perimeter = _____ cm

5. Hexagonal sign: each side is 6 cm



Perimeter = _____ cm

6. Classroom table: 90 cm by 60 cm



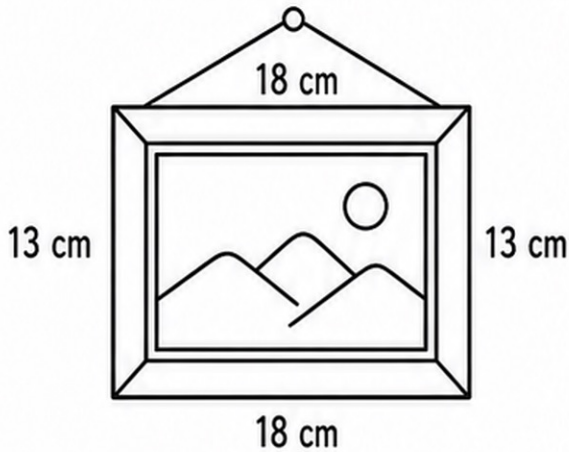
Perimeter = _____ cm

PERIMETER AROUND US

Name: **ANSWERS**

Find the distance around each everyday object. Add the outside side lengths.

1. Picture frame: 18 cm by 13 cm



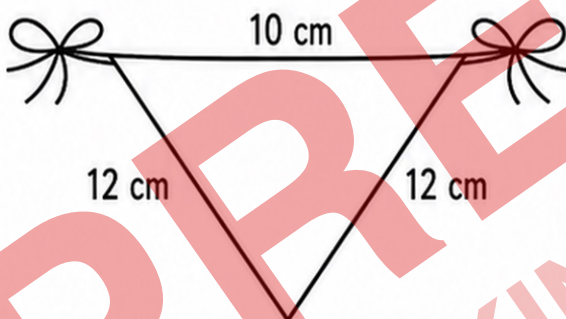
Perimeter = **62** cm

2. Phone case: 15 cm by 7 cm



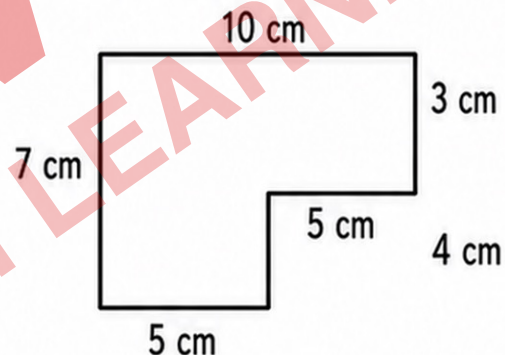
Perimeter = **44** cm

3. Triangular bunting flag: 12 cm, 12 cm, 10 cm



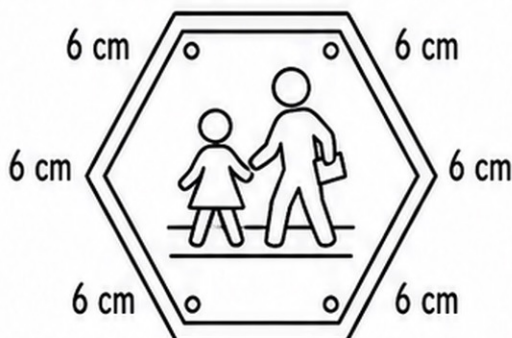
Perimeter = **34** cm

4. L-shaped floor tile: 10 cm, 3 cm, 5 cm, 4 cm, 5 cm, 7 cm



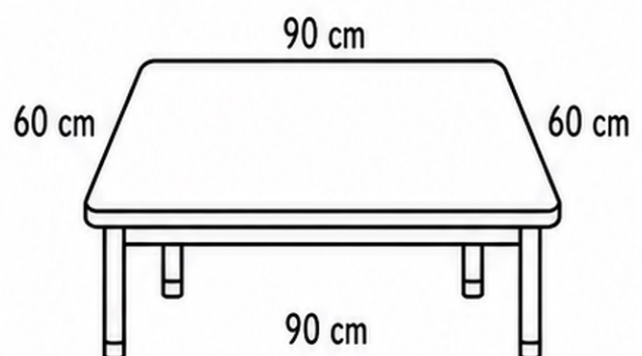
Perimeter = **34** cm

5. Hexagonal sign: each side is 6 cm



Perimeter = **36** cm

6. Classroom table: 90 cm by 60 cm



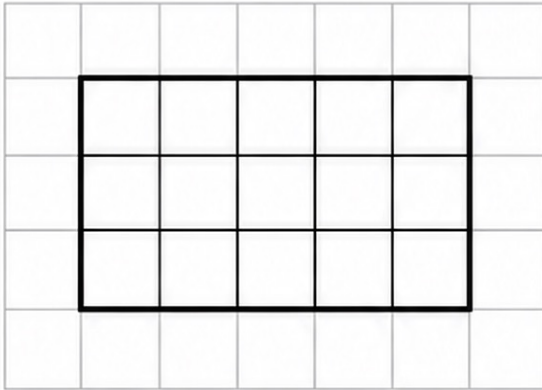
Perimeter = **300** cm

GRID PERIMETER CHALLENGE

Name: _____

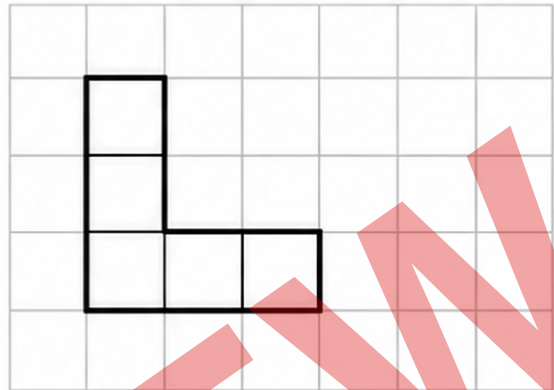
Add the listed outside edge lengths for each grid shape.

1. Shape 1: $5\text{ cm} + 3\text{ cm} + 5\text{ cm} + 3\text{ cm}$



= _____ cm

2. Shape 2: $4\text{ cm} + 2\text{ cm} + 2\text{ cm} + 2\text{ cm} + 2\text{ cm} + 4\text{ cm}$



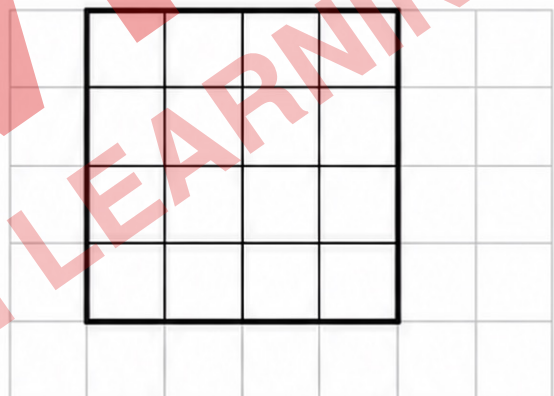
= _____ cm

3. Shape 3: $4\text{ cm} + 1\text{ cm} + 1\text{ cm} + 2\text{ cm} + 1\text{ cm} + 1\text{ cm} + 4\text{ cm} + 2\text{ cm}$



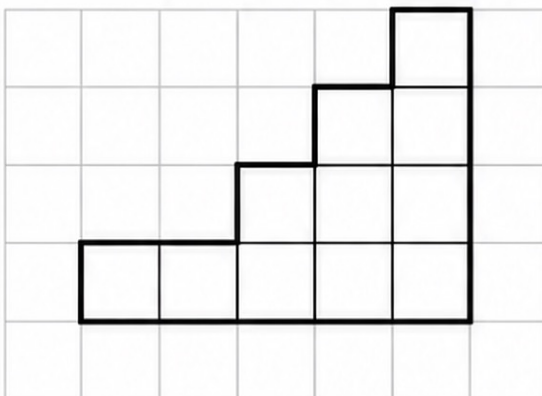
= _____ cm

4. Shape 4: $5\text{ cm} + 5\text{ cm} + 5\text{ cm} + 5\text{ cm}$



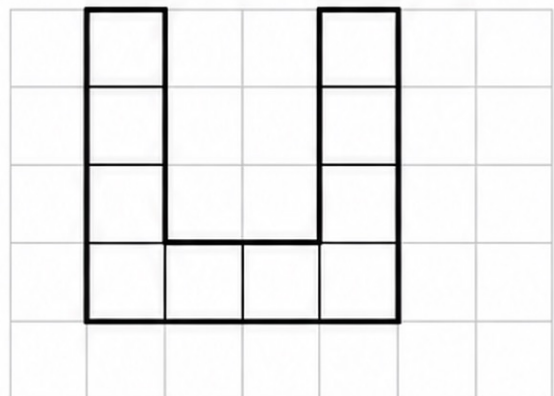
= _____ cm

5. Shape 5: $5\text{ cm} + 4\text{ cm} + 3\text{ cm} + 2\text{ cm} + 2\text{ cm} + 3\text{ cm} + 4\text{ cm} + 5\text{ cm}$



= _____ cm

6. Shape 6: $3\text{ cm} + 2\text{ cm} + 3\text{ cm} + 2\text{ cm} + 1\text{ cm} + 1\text{ cm} + 3\text{ cm} + 5\text{ cm}$



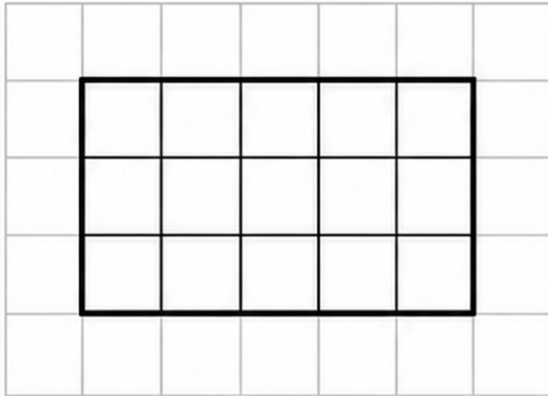
= _____ cm

GRID PERIMETER CHALLENGE

Name: **ANSWERS**

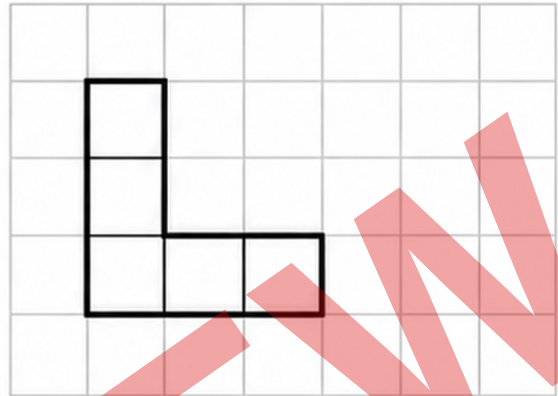
Add the listed outside edge lengths for each grid shape.

1. Shape 1: $5\text{ cm} + 3\text{ cm} + 5\text{ cm} + 3\text{ cm}$



= **16** cm

2. Shape 2: $4\text{ cm} + 2\text{ cm} + 2\text{ cm} + 2\text{ cm} + 2\text{ cm} + 4\text{ cm}$



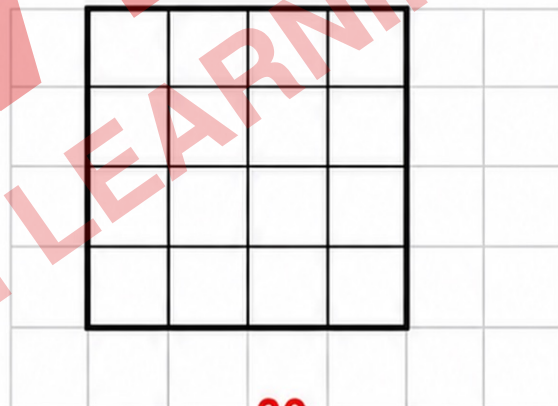
= **16** cm

3. Shape 3: $4\text{ cm} + 1\text{ cm} + 1\text{ cm} + 2\text{ cm} + 1\text{ cm} + 1\text{ cm} + 4\text{ cm} + 2\text{ cm}$



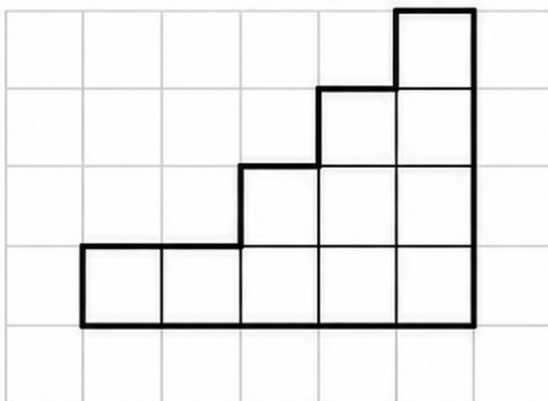
= **16** cm

4. Shape 4: $5\text{ cm} + 5\text{ cm} + 5\text{ cm} + 5\text{ cm}$



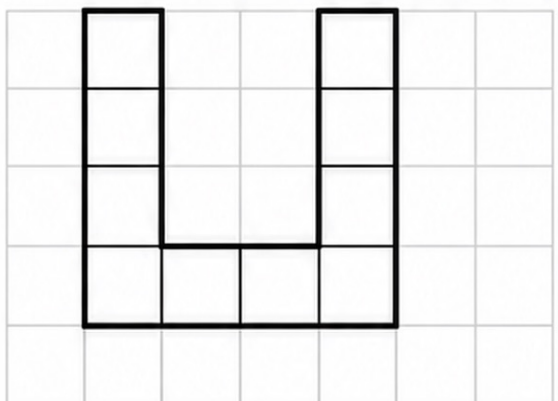
= **20** cm

5. Shape 5: $5\text{ cm} + 4\text{ cm} + 3\text{ cm} + 2\text{ cm} + 2\text{ cm} + 3\text{ cm} + 4\text{ cm} + 5\text{ cm}$



= **28** cm

6. Shape 6: $3\text{ cm} + 2\text{ cm} + 3\text{ cm} + 2\text{ cm} + 1\text{ cm} + 1\text{ cm} + 3\text{ cm} + 5\text{ cm}$



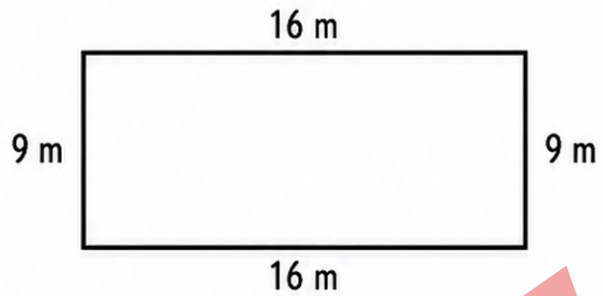
= **20** cm

COMMUNITY GARDEN FENCE PLAN

Name: _____

Show your working. Include the correct unit in every answer.

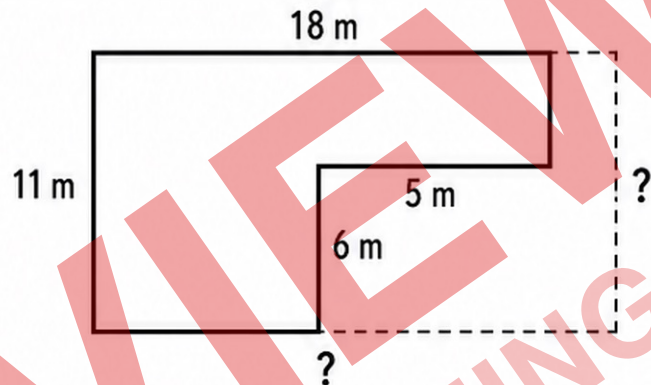
1. The vegetable garden is a rectangle.
It is 16 m long and 9 m wide.
Find the perimeter.



Working: _____

Perimeter: _____

2. The herb garden is an L-shape.
Known sides: top 18 m, step 5 m,
inner side 6 m, left side 11 m.

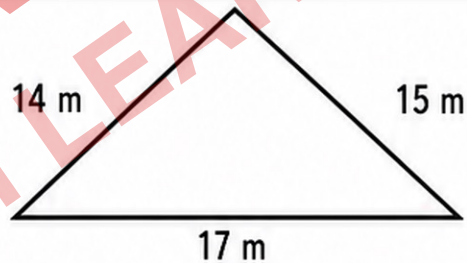


Missing bottom = _____ m

Missing right side = _____ m

Perimeter = _____ m

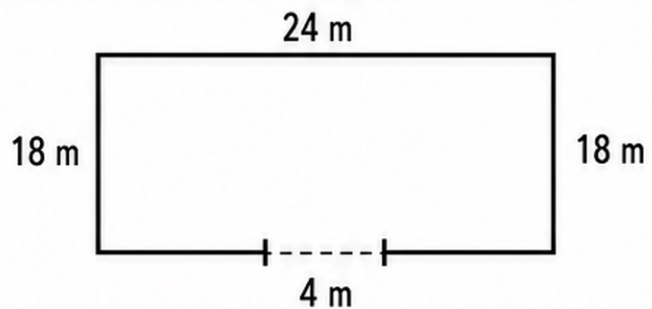
3. A triangular native garden has
side lengths of 14 m, 15 m and
17 m. Find the perimeter.



Working: _____

Perimeter: _____

4. A rectangular play space is 24 m long
and 18 m wide. A 4 m gate opening
does not need fencing.
How many metres of fencing
are needed?



Working: _____

Answer: _____

5. Explain: Why is it important to include the unit when writing a perimeter answer?

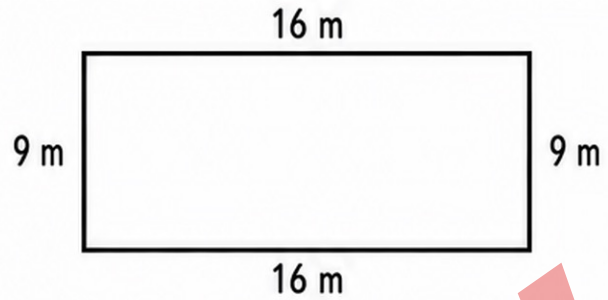
Response: _____

COMMUNITY GARDEN FENCE PLAN

Name: **ANSWERS**

Show your working. Include the correct unit in every answer.

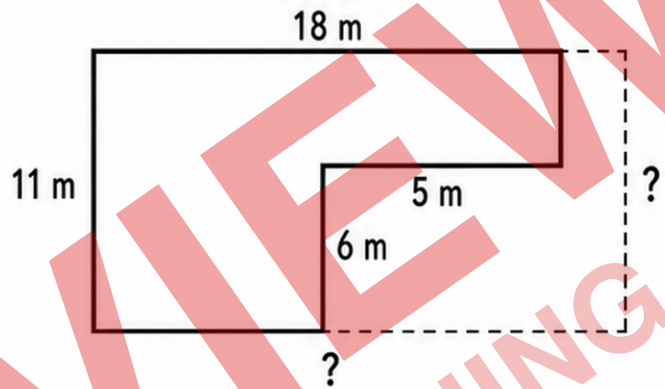
1. The vegetable garden is a rectangle.
It is 16 m long and 9 m wide.
Find the perimeter.



Working: $16 + 9 + 16 + 9$

Perimeter: 50 m

2. The herb garden is an L-shape.
Known sides: top 18 m, step 5 m,
inner side 6 m, left side 11 m.

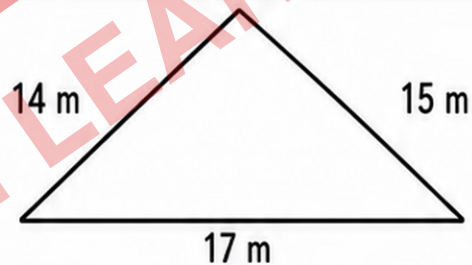


Missing bottom = 13 m

Missing right side = 5 m

Perimeter = 58 m

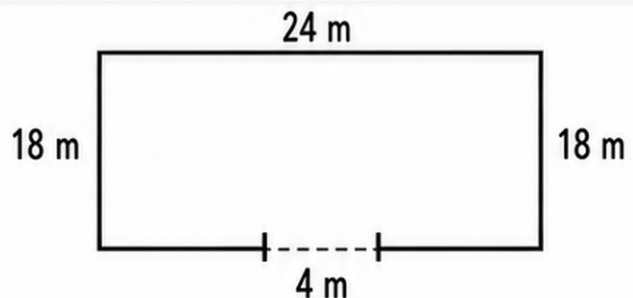
3. A triangular native garden has
side lengths of 14 m, 15 m and
17 m. Find the perimeter.



Working: $14 + 15 + 17$

Perimeter: 46 m

4. A rectangular play space is 24 m long
and 18 m wide. A 4 m gate opening
does not need fencing.
How many metres of fencing
are needed?



Working: $24 + 18 + 24 + 18 - 4$

Answer: 80 m

5. Explain: Why is it important to include the unit when writing a perimeter answer?

Response: Units show what was measured, such as metres or centimetres.

PERIMETER YEAR 5 RUBRIC

Name: _____

Date: _____

Criteria:	BEGINNING	DEVELOPING	ACHIEVING	CONFIDENT	EXCEEDING
1. Understands perimeter as the distance around a shape.	Needs support; counts some sides; units often missing.	Finds simple perimeters; occasional errors; units sometimes included.	Finds simple and compound perimeters accurately; includes units.	Solves varied perimeter problems; checks missing sides and units.	Solves complex tasks efficiently; explains reasoning clearly.
2. Adds side lengths accurately and includes units.	Needs support; counts some sides; units often missing.	Finds simple perimeters; occasional errors; units sometimes included.	Finds simple and compound perimeters accurately; includes units.	Solves varied perimeter problems; checks missing sides and units.	Solves complex tasks efficiently; explains reasoning clearly.
3. Finds missing sides in compound shapes.	Needs support; counts some sides; units often missing.	Finds simple perimeters; occasional errors; units sometimes included.	Finds simple and compound perimeters accurately; includes units.	Solves varied perimeter problems; checks missing sides and units.	Solves complex tasks efficiently; explains reasoning clearly.
4. Applies perimeter to real-world problems.	Needs support; counts some sides; units often missing.	Finds simple perimeters; occasional errors; units sometimes included.	Finds simple and compound perimeters accurately; includes units.	Solves varied perimeter problems; checks missing sides and units.	Solves complex tasks efficiently; explains reasoning clearly.
5. Explains strategies using clear mathematical language.	Needs support; counts some sides; units often missing.	Finds simple perimeters; occasional errors; units sometimes included.	Finds simple and compound perimeters accurately; includes units.	Solves varied perimeter problems; checks missing sides and units.	Solves complex tasks efficiently; explains reasoning clearly.

Perimeter

Year 5



Perimeter

Quiz

