

KS3 – Perimeter & Area

Section A – Perimeter

Q1 (4 marks)

Find each perimeter. No diagram is needed.

- a) A square has side length 7 cm.

- b) A rectangle has length 9 cm and width 4 cm.

- c) An equilateral triangle has side length 11 cm.

- d) A regular pentagon has side length 6 cm.

Q2 (4 marks)

Find each missing length.

- a) A rectangle has perimeter 30 cm and length 9 cm. Find its width.

- b) A square has perimeter 36 cm. Find its side length.

- c) An equilateral triangle has perimeter 42 cm. Find its side length.

d) A regular hexagon has perimeter 54 cm. Find its side length.

Q3 (3 marks)

Solve each perimeter problem.

a) A rectangular garden is 12 m long and 7 m wide. How much fencing is needed to go around it?

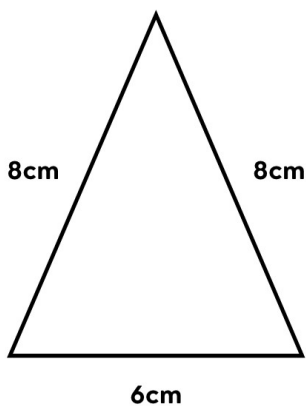
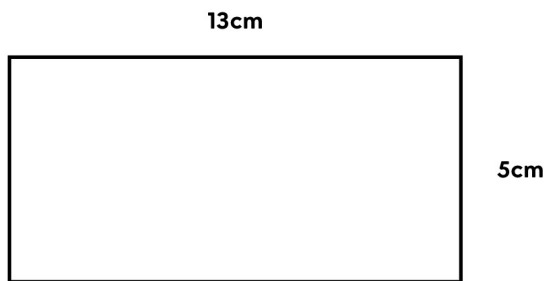
b) A square playground has sides of 18 m. Find its perimeter.

c) A rectangular photo frame is 24 cm by 16 cm. Find the distance around its outside edge.

Q4 (3 marks)

Use the diagrams to find the perimeter.

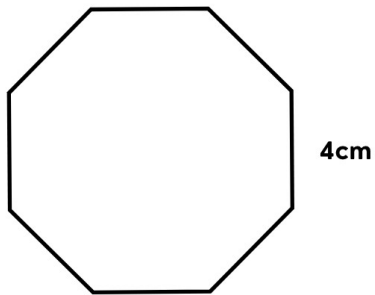
a)



b)

Learni

c)



Challenge

Q5 (3 marks)

A rectangular field has perimeter 74 m. Its length is 23 m.
Find the width of the field.

Section B – Area of Shapes

Q6 (4 marks)

Find each area. No diagram is needed.

a) Rectangle: length 8 cm, width 5 cm.

b) Square: side length 9 cm.

c) Rectangle: length 12 m, width 7 m.

d) Square: side length 13 m.

Q7 (3 marks)

Find the area of each triangle.

a) Base 10 cm, perpendicular height 6 cm.

b) Base 14 m, perpendicular height 5 m.

c) Base 9 cm, perpendicular height 8 cm.

Q8 (3 marks)

Find the area of each parallelogram.

a) Base 8 cm, perpendicular height 5 cm.

b) Base 12 m, perpendicular height 7 m.

c) Base 15 cm, perpendicular height 4 cm.

Q9 (3 marks)

Find the area of each trapezium.

a) Parallel sides 6 cm and 10 cm, perpendicular height 4 cm.

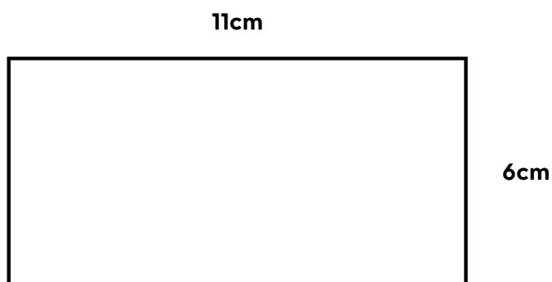
b) Parallel sides 9 m and 15 m, perpendicular height 5 m.

c) Parallel sides 7 cm and 13 cm, perpendicular height 6 cm.

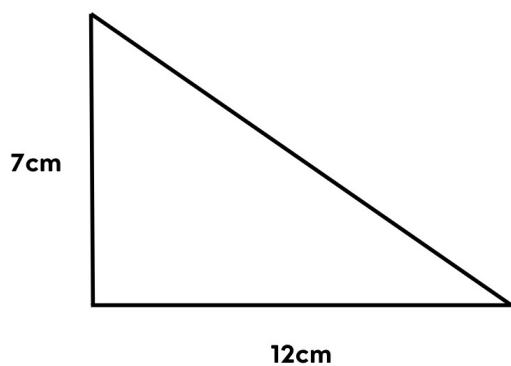
Q10 (4 marks)

Use the diagrams to find the area.

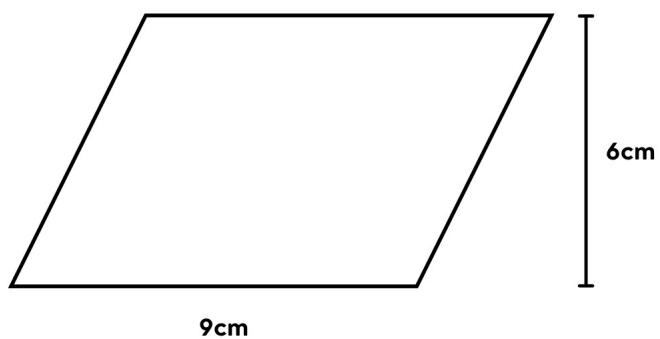
a)



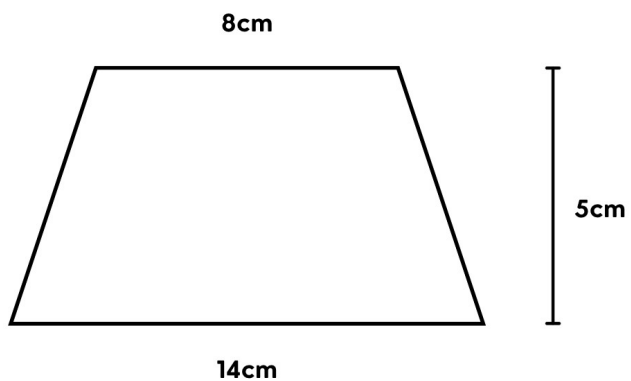
b)



c)



d)



Q11 (3 marks)

Solve each area problem.

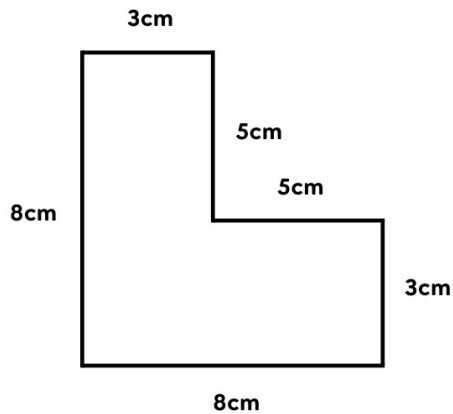
- A rectangular lawn is 15 m long and 8 m wide. Find its area.
- A square floor has side length 6 m. Find its area.
- A triangular flag has base 18 cm and perpendicular height 10 cm. Find its area.

Section C – Compound Shapes

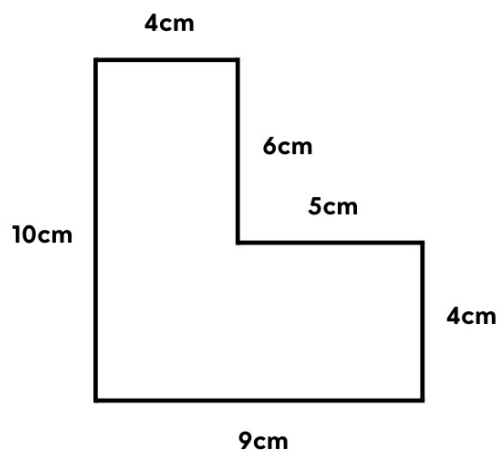
Q12 (2 marks)

Find the area of each compound shape.

a)



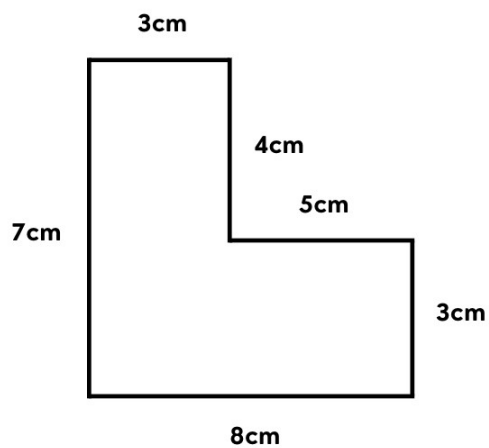
b)



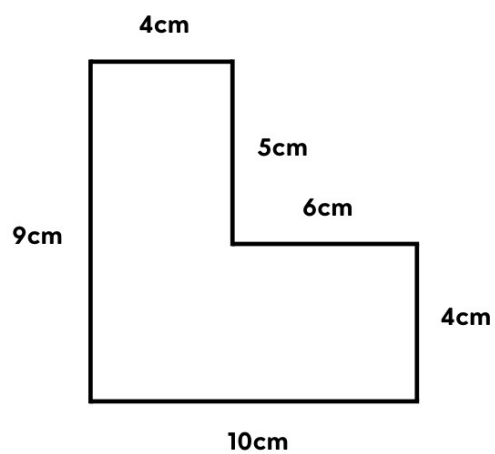
Q13 (2 marks)

Find the perimeter of each compound shape.

a)

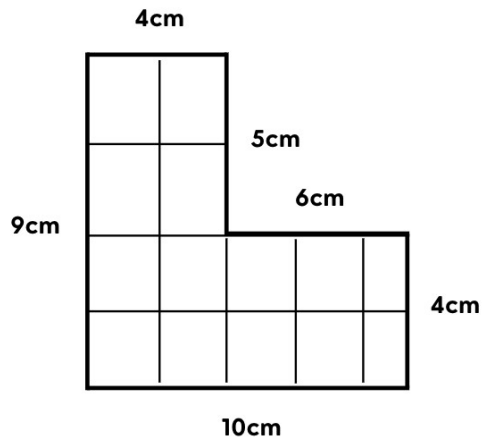


b)



Q14 (4 marks)

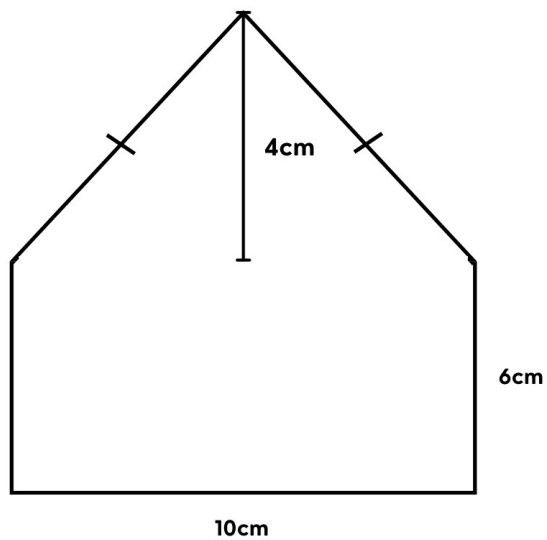
A patio is an L-shape.



Find the area of the patio.

Q15 (4 marks)

A compound shape is made from a rectangle and a triangle.



Find the total area of the compound shape.

Challenge

Q16 (4 marks)

A rectangular garden measures 14 m by 10 m. A rectangular pond measuring 5 m by 3 m is built inside it.

Find the area of the garden that is not covered by the pond.

Section D – Circles

Q17 (3 marks)

Answer these questions about circles.

- a) What is the name of the distance from the centre of a circle to its edge?

- b) What is the name of the distance across a circle through its centre?

- c) A circle has radius 6 cm. What is its diameter?

Q18 (4 marks)

Find each circumference. Give answers to 1 decimal place.

- a) Radius = 5 cm

- b) Diameter = 12 cm

- c) Radius = 8 m

- d) Diameter = 20 m

Q19 (4 marks)

Find each area. Give answers to 1 decimal place.

a) Radius = 4 cm

b) Radius = 7 cm

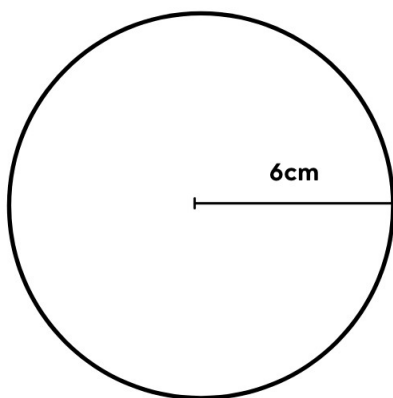
c) Diameter = 10 m

d) Diameter = 16 m

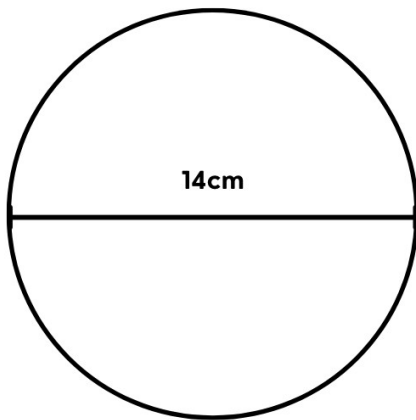
Q20 (3 marks)

Use the diagrams. Give answers to 1 decimal place.

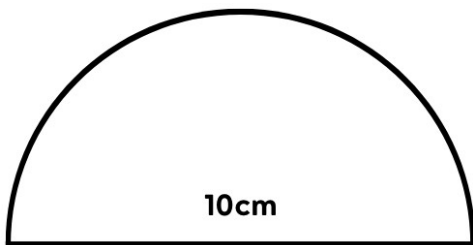
a) Calculate the area



b) Calculate the area



c) Calculate the area



Q21 (3 marks)

Find each area. Give answers to 1 decimal place.

a) A semicircle has radius 8 cm.

b) A semicircle has diameter 12 m.

c) A quarter-circle has radius 10 cm.

Challenge

Q22 (4 marks)

A circular flower bed has radius 5 m.

a) Find its circumference to 1 decimal place.

b) Find its area to 1 decimal place.

Total: ____ / 74

Percentage: ____%