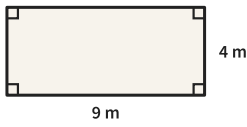


Interleaved: area, perimeter and circles

ANSWERS 

1

A garden bed is a rectangle 9 m long and 4 m wide. How much edging goes all the way round it?



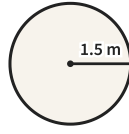
Which method? ☐ Area ☒ Perimeter
☐ Circumference ☐ Area of a circle

all the way round: $9 + 4 + 9 + 4 = 26$, in m

Answer 26 m

2

A circular rug has a radius of 1.5 m. How much floor does it cover? Give your answer to 1 decimal place.



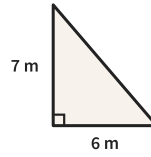
Which method? ☐ Area ☐ Perimeter
☐ Circumference ☒ Area of a circle

$\pi \times 1.5^2$

Answer 7.1 m²

3

A sail is a right angled triangle with a base of 6 m and a height of 7 m. How much fabric is in the sail?



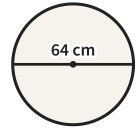
Which method? ☒ Area ☐ Perimeter
☐ Circumference ☐ Area of a circle

$\frac{1}{2} \times 6 \times 7$

Answer 21 m²

4

A bike wheel has a diameter of 64 cm. How far does the bike move in one turn of the wheel? Give your answer to 1 decimal place.



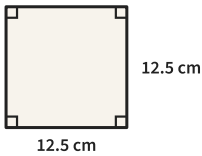
Which method? ☐ Area ☐ Perimeter
☒ Circumference ☐ Area of a circle

$\pi \times 64$

Answer 201.1 cm

5

Ribbon goes once round the edge of a square card with sides of 12.5 cm. How much ribbon is used?



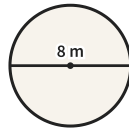
Which method? ☐ Area ☒ Perimeter
☐ Circumference ☐ Area of a circle

4×12.5

Answer 50 cm

6

A circular pond has a diameter of 8 m. Find the area of its surface. Give your answer to 1 decimal place.



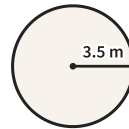
Which method? ☐ Area ☐ Perimeter
☐ Circumference ☒ Area of a circle

radius 4 m: $\pi \times 4^2$

Answer 50.3 m²

7

A circular flower bed has a radius of 3.5 m. A low fence goes all the way round it. How long is the fence? Give your answer to 1 decimal place.



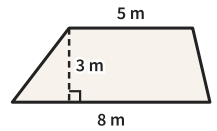
Which method? ☐ Area ☐ Perimeter
☒ Circumference ☐ Area of a circle

$2 \times \pi \times 3.5$

Answer 22.0 m

8

A patio is a trapezium. How many square metres of slabs cover it?



Which method? ☒ Area ☐ Perimeter
☐ Circumference ☐ Area of a circle

$\frac{1}{2} \times (5 + 8) \times 3$

Answer 19.5 m²

Interleaved: area, perimeter and circles *further practice*

ANSWERS 

9

A rectangular field is 120 m long and 75 m wide. A farmer puts a fence all the way round it. How much fence does he need?

$120 + 75 + 120 + 75$

Answer 390 m

10

A pizza has a diameter of 30 cm. Find the area of its top. Give your answer to 1 decimal place.

radius 15 cm: $\pi \times 15^2$

Answer 706.9 cm²

11

The minute hand of a clock is 9 cm long. How far does its tip travel in one hour? Give your answer to 1 decimal place.

one full turn: $2 \times \pi \times 9$

Answer 56.5 cm

12

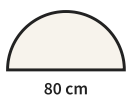
A wall is 4.2 m wide and 2.5 m high. What area of wall needs paint?

4.2×2.5

Answer 10.5 m²

13

A semicircular window has a diameter of 80 cm. Find the area of the glass. Give your answer to 1 decimal place.



half of $\pi \times 40^2$

Answer 2513.3 cm²

14

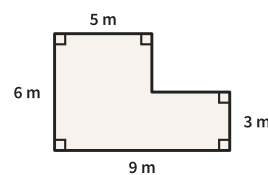
Trim goes all the way round the edge of the same window: the curved edge and the straight edge. How much trim is needed? Give your answer to 1 decimal place.

half of $\pi \times 80$, plus 80

Answer 205.7 cm

15

Skirting board goes all the way round the edge of this room. How much skirting board is needed?

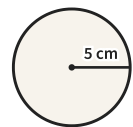


*the missing sides are 4 m and 3 m:
 $9 + 3 + 4 + 3 + 5 + 6$*

Answer 30 m

16

Jo says a circle with a radius of 5 cm has an area of 31.4 cm². Explain her mistake and find the area.



*31.4 is $2 \times \pi \times 5$, the circumference.
 Area is $\pi \times 5^2$*

Answer 78.5 cm²