



THIRD SPACE  
LEARNING

# GCSE Exam Questions

Circumference of a Circle |  
Geometry & Measure

## GCSE Exam Questions: Circumference of a Circle

- 1) The diameter of a wheel on Peter's bicycle is  $0.65\text{m}$ .

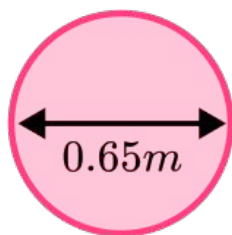


Diagram NOT  
accurately drawn

Calculate the circumference of the wheel.

Give your answer correct to 2 decimal places.

-----m  
(2 marks)

- 2) Below is a semicircle.

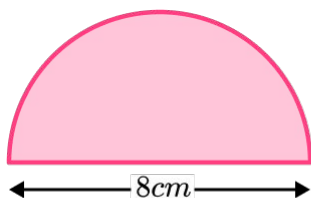


Diagram NOT  
accurately drawn

The diameter of the semicircle is  $8\text{cm}$ .

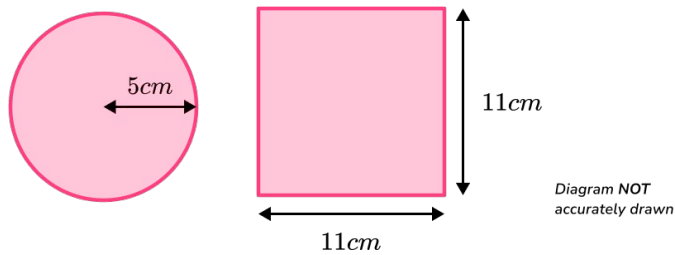
Work out the perimeter.

Give your answer correct to 3 significant figures.

-----cm  
(3 marks)

## GCSE Exam Questions: Circumference of a Circle

- 3) A circle has a radius of  $5\text{cm}$ . A square has a side length of  $11\text{cm}$ .



Work out the difference between the perimeter of the circle and the perimeter of the square. Give your answer correct to 1 decimal place.

..... cm  
(4 marks)

- 4) A circular mirror has a diameter of  $1.5\text{m}$ . Work out the circumference of the mirror. Give your answer in terms of  $\pi$ .

..... m  
(2 marks)

## GCSE Exam Questions: Circumference of a Circle

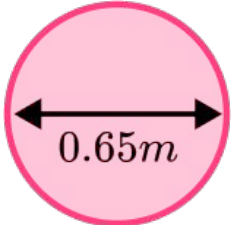
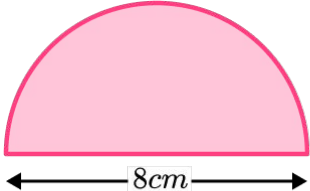
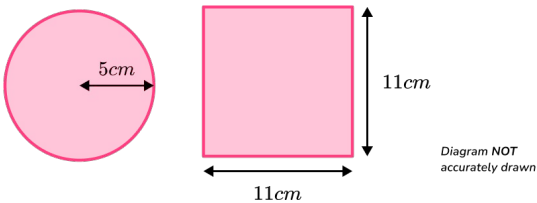
- 5) A circular picture frame has a circumference of  $37.7\text{cm}$ .  
Calculate the diameter of the picture frame.

-----cm  
(2 marks)

- 6) The circumference of a circle is  $19.5\text{cm}$ . Work out the length of the  
radius of the circle. Give your answer correct to 1 decimal place.

-----cm  
(3 marks)

## GCSE Exam Questions: Circumference of a Circle Answers

	Question	Answer	Marks
1)	<p>The diameter of a wheel on Peter's bicycle is 0.65m. Calculate the circumference of the wheel. Give your answer correct to 2 decimal places.</p>  <p><i>Diagram NOT accurately drawn</i></p>	$0.65 \times \pi$ $2.042035225\dots$ $2.04m$	<b>(1)</b>   <b>(1)</b>
2)	<p>Below is a semicircle.</p>  <p><i>Diagram NOT accurately drawn</i></p> <p>The diameter of the semicircle is 8cm. Work out the perimeter. Give your answer correct to 3 significant figures.</p>	$8 \times \pi \div 2 (= 12.566\dots)$ $12.566\dots + 8 (= 20.566\dots)$ $20.6cm$	<b>(1)</b> <b>(1)</b> <b>(1)</b>
3)	<p>A circle has a radius of 5cm. A square has a side length of 11cm.</p>  <p><i>Diagram NOT accurately drawn</i></p> <p>Work out the difference between the perimeter of the circle and the perimeter of the square. Give your answer correct to 1 decimal place.</p>	$10 \times \pi (= 31.41\dots)$ $11 \times 4 (= 44cm)$ $44 - 31.41\dots (= 12.58\dots)$ $12.6cm$	<b>(1)</b> <b>(1)</b> <b>(1)</b> <b>(1)</b>
4)	<p>A circular mirror has a diameter of 1.5m. Work out the circumference of the mirror. Give your answer in terms of <math>\pi</math>.</p>	$1.5 \times \pi$ $1.5\pi$	<b>(1)</b> <b>(1)</b>

## GCSE Exam Questions: Circumference of a Circle Answers

	Question	Answer	Marks
5)	A circular picture frame has a circumference of $37.7\text{cm}$ . Calculate the diameter of the picture frame.	$37.7 \div \pi$ $12\text{cm}$	(1) (1)
6)	The circumference of a circle is $19.5\text{cm}$ . Work out the length of the radius of the circle. Give your answer correct to 1 decimal place.	$19.5 \div \pi$ $6.207... \div 2$ $3.1\text{ cm}$	(1) (1) (1)

# Where to go next?

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