ENGLAND GCSE MATHS EDEXCEL HIGHER · UNIT 10 · 25 QUESTIONS

Geometry, Measurement, Area, Volume and Circles — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **An ice cream cone is a cone with radius 5 cm and height 8 cm. Its volume, to one decimal place, is about**

- **A** 418.8 cm³
- **B** 209.4 cm³
- **C** 628.3 cm³
- **D** 41.9 cm³

Understand It with Pulse | Flag a mistake

2 **A cardboard box is 5 cm long, 2 cm wide and 2 cm high. Its volume is**

- A 12 cm^3
- B 25 cm^3
- C 20 cm^3
- D 10 cm^3

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3 **A swimming pool is 25 m long, 12 m wide and 2 m deep. Its volume is**

- A 300 m^3
- B 700 m^3
- C 600 m^3
- D 624 m^3

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4 **A slice of a cheese pizza is a sector of a circle with radius 10 cm and angle 90°. Its area, to one decimal place, is about**

- **A** 39.2 cm²
- **B** 78.5 cm²
- **C** 314.2 cm²
- **D** 157 cm²

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5 **A Ferris wheel has a diameter of 14 m. Its circumference, to one decimal place, is about**

- **A** 88 m
- **B** 44 m
- **C** 22 m
- **D** 50.3 m

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6 **A cup of coffee fills a cylindrical cup with radius 3 cm and height 10 cm. The volume of the coffee is, to one decimal place, about**

- A 565.5 cm^3
- B 282.7 cm^3
- C 28.3 cm^3
- D 94.2 cm^3

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7 **A roundabout has a radius of 12 m. Its area, to one decimal place, is about**

- A 75.4 m^2
- B 37.7 m^2
- C 452.4 m^2
- D 904.8 m^2

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8 **A circle has a radius of 8 cm. A sector with central angle 60° has area, to one decimal place, about**

- **A** 67 cm^2
- **B** 8.4 cm^2
- **C** 33.5 cm^2
- **D** 201.1 cm^2

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9 **A prism has a cross-section of area 15 cm^2 and length 10 cm. Its volume is**

- **A** 75 cm^3
- **B** 165 cm^3
- **C** 25 cm^3
- **D** 150 cm^3

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10 **A trapezium has parallel sides of 8 cm and 11 cm, and the distance between them is 4 cm. Its area is**

- A 88 cm²
- B 38 cm²
- C 42 cm²
- D 76 cm²

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11 **A circle has a radius of 3 cm. Its area, to one decimal place, is about**

- A 56.5 cm²
- B 18.8 cm²
- C 9.4 cm²
- D 28.3 cm²

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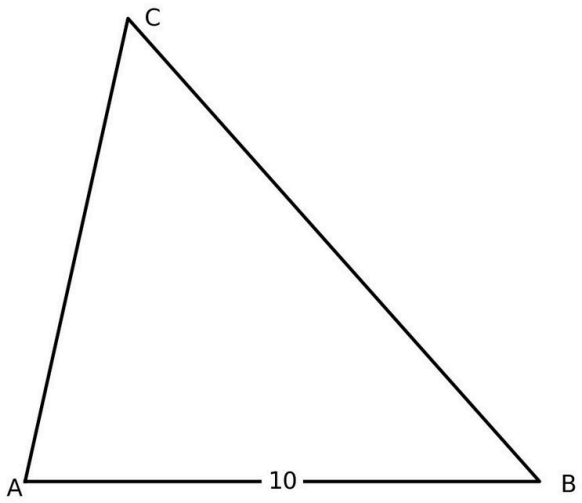
12 **A triangle has base 10 cm and height 9 cm. Its area is**



- **A** 90 cm²
- **B** 55 cm²
- **C** 19 cm²
- **D** 45 cm²

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13 **A rectangle is 12 cm long and 10 cm wide. Its perimeter is**

- A 46 cm
- B 120 cm
- C 44 cm
- D 22 cm

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14 **Two solids are similar. The smaller has volume 30 cm³ and the linear scale factor is 3. The volume of the larger solid is**

- A 810 cm³
- B 90 cm³
- C 2430 cm³
- D 270 cm³

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15 **A cone has radius 3 cm and height 12 cm. Its volume, to one decimal place, is about**

- A 339.3 cm^3
- B 37.7 cm^3
- C 113.1 cm^3
- D 226.2 cm^3

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16 **A cuboid is 5 cm by 5 cm by 2 cm. Its total surface area is**

- A 45 cm^2
- B 90 cm^2
- C 92 cm^2
- D 50 cm^2

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17 **A circle has a radius of 5 cm. Its circumference, to one decimal place, is about**

- A 15.7 cm
- B 31.4 cm
- C 78.5 cm
- D 37.7 cm

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18 **A circle has a radius of 6 cm. An arc with central angle 90° has length, to one decimal place, about**

- A 9.4 cm
- B 18.8 cm
- C 28.3 cm
- D 37.7 cm

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19 **A chocolate cake is a cylinder with radius 8 cm and height 6 cm. Its volume, to one decimal place, is about**

- **A** 201.1 cm³
- **B** 1206.4 cm³
- **C** 2412.7 cm³
- **D** 150.8 cm³

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20 **A sphere has radius 6 cm. Its volume, to one decimal place, is about**

- **A** 678.6 cm³
- **B** 452.4 cm³
- **C** 904.8 cm³
- **D** 150.8 cm³

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21 **A circle has a radius of 8 cm. A sector with central angle 72° has area, to one decimal place, about**

- **A** 40.2 cm²
- **B** 80.4 cm²
- **C** 201.1 cm²
- **D** 10.1 cm²

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22 **A cylinder has radius 4 cm and height 6 cm. Its volume, to one decimal place, is about**

- **A** 50.3 cm³
- **B** 75.4 cm³
- **C** 150.8 cm³
- **D** 301.6 cm³

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23 **A prism has a cross-section of area 20 cm² and length 8 cm. Its volume is**

- A 80 cm³
- B 28 cm³
- C 180 cm³
- D 160 cm³

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24 **A trapezium has parallel sides of 4 cm and 7 cm, and the distance between them is 7 cm. Its area is**

- A 28 cm²
- B 45 cm²
- C 38 cm²
- D 77 cm²

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25 **A circle has a radius of 4 cm. Its area, to one decimal place, is about**

- **A** 25.1 cm²
- **B** 12.6 cm²
- **C** 100.5 cm²
- **D** 50.3 cm²

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	B	**10.**	B	**19.**	B
2.	C	**11.**	D	**20.**	C
3.	C	**12.**	D	**21.**	A
4.	B	**13.**	C	**22.**	D
5.	B	**14.**	A	**23.**	D
6.	B	**15.**	C	**24.**	C
7.	C	**16.**	B	**25.**	D
8.	C	**17.**	B		
9.	D	**18.**	A		

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