ENGLAND GCSE MATHS OCR 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 4 cm and height 10 cm. Its volume, to one decimal place, is about**

- **A** 502.7 cm³
- **B** 167.6 cm³
- **C** 41.9 cm³
- **D** 335.2 cm³

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2 **A slice of a cheese pizza is a sector of a circle with radius 8 cm and angle 60°. Its area, to one decimal place, is about**

- **A** 67 cm²
- **B** 16.8 cm²
- **C** 201.1 cm²
- **D** 33.5 cm²

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3 **A Ferris wheel has a diameter of 28 m. Its circumference, to one decimal place, is about**

- **A** 94.2 m
- **B** 88 m
- **C** 44 m
- **D** 175.9 m

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4 **A roundabout has a radius of 10 m. Its area, to one decimal place, is about**

- **A** 314.2 m²
- **B** 628.3 m²
- **C** 31.4 m²
- **D** 62.8 m²

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5 **A cardboard box is 6 cm long, 3 cm wide and 6 cm high. Its volume is**

- **A** 18 cm³
- **B** 24 cm³
- **C** 108 cm³
- **D** 114 cm³

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6 **A cup of coffee fills a cylindrical cup with radius 4 cm and height 10 cm. The volume of the coffee is, to one decimal place, about**

- A 502.7 cm^3
- B 50.3 cm^3
- C 125.7 cm^3
- D 1005.3 cm^3

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7 **The radius of a circle is 8 cm. An arc with central angle 120° has length, to one decimal place, about**

- A 33.6 cm
- B 67 cm
- C 50.3 cm
- D 16.8 cm

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8 **Two solids are similar. The smaller has volume 30 cm³ and the linear scale factor is 2. The volume of the larger solid is**

- A 480 cm³
- B 120 cm³
- C 60 cm³
- D 240 cm³

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9 **The radius of a circle is 3 cm. Its area, to one decimal place, is about**

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

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10 The radius of a circle is 10 cm. A sector with central angle 72° has area, to one decimal place, about

- **A** 62.8 cm²
- **B** 12.6 cm²
- **C** 125.6 cm²
- **D** 314.2 cm²

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11 A trapezium has parallel sides of 4 cm and 8 cm, and the distance between them is 5 cm. Its area is

- **A** 60 cm²
- **B** 32 cm²
- **C** 35 cm²
- **D** 30 cm²

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12 **A sphere has radius 4 cm. Its volume, to one decimal place, is about**

- **A** 278.1 cm^3
- **B** 201.1 cm^3
- **C** 67 cm^3
- **D** 268.1 cm^3

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13 **A cuboid is 6 cm by 5 cm by 4 cm. Its total surface area is**

- **A** 148 cm^2
- **B** 60 cm^2
- **C** 74 cm^2
- **D** 120 cm^2

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14 **A swimming pool is 30 m long, 8 m wide and 2 m deep. Its volume is**

- **A** 580 m³
- **B** 240 m³
- **C** 480 m³
- **D** 496 m³

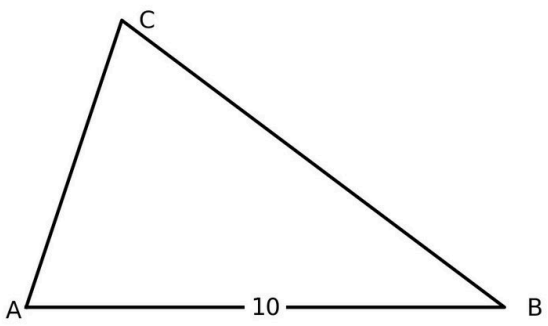
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15 **A cylinder has radius 4 cm and height 12 cm. Its volume, to one decimal place, is about**

- **A** 603.2 cm³
- **B** 50.3 cm³
- **C** 301.6 cm³
- **D** 150.8 cm³

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16 **A triangle has base 10 cm and height 6 cm. Its area is**



A 60 cm²

B 16 cm²

C 30 cm²

D 40 cm²

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17 **A prism has a cross-section of area 24 cm² and length 8 cm. Its volume is**

- **A** 32 cm³
- **B** 192 cm³
- **C** 96 cm³
- **D** 216 cm³

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18 **A chocolate cake is a cylinder with radius 10 cm and height 6 cm. Its volume, to one decimal place, is about**

- **A** 188.5 cm³
- **B** 3769.9 cm³
- **C** 314.2 cm³
- **D** 1885 cm³

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19 **The radius of a circle is 10 cm. Its circumference, to one decimal place, is about**

- **A** 69.1 cm
- **B** 62.8 cm
- **C** 314.2 cm
- **D** 31.4 cm

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20 **A rectangle is 15 cm long and 8 cm wide. Its perimeter is**

- **A** 46 cm
- **B** 48 cm
- **C** 120 cm
- **D** 23 cm

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21 **A cone has radius 4 cm and height 9 cm. Its volume, to one decimal place, is about**

- **A** 37.7 cm³
- **B** 226.2 cm³
- **C** 452.4 cm³
- **D** 150.8 cm³

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22 **The radius of a circle is 8 cm. An arc with central angle 90° has length, to one decimal place, about**

- **A** 25.2 cm
- **B** 12.6 cm
- **C** 13.6 cm
- **D** 50.3 cm

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23 **Two solids are similar. The smaller has volume 40 cm³ and the linear scale factor is 2. The volume of the larger solid is**

- **A** 320 cm³
- **B** 160 cm³
- **C** 640 cm³
- **D** 80 cm³

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24 **The radius of a circle is 4 cm. Its area, to one decimal place, is about**

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

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25 **The radius of a circle is 10 cm. A sector with central angle 90° has area, to one decimal place, about**

A 15.7 cm²

B 78.5 cm²

C 157 cm²

D 314.2 cm²

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ANSWER KEY

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

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