Area, Perimeter & Volume: Hard Practice Paper 2

Q1. A car park is a 15 m by 9 m rectangle with a 6 m by 4 m rectangle removed from one corner. What is its area?

A. 87 m² B. 99 m² C. 105 m² D. 111 m² E. 135 m²

Q2. A cuboid measures 6 cm by 5 cm by 2 cm. What is its total surface area?

A. 52 cm² B. 60 cm² C. 104 cm² D. 120 cm² E. 208 cm²

Q3. A cuboid has a base area of 45 cm² and a height of 8 cm. What is its volume?

A. 53 cm³ B. 180 cm³ C. 270 cm³ D. 360 cm³ E. 720 cm³

Q4. A rectangle has an area of 96 cm² and a perimeter of 40 cm. What is its length?

A. 8 cm B. 10 cm C. 12 cm D. 16 cm E. 24 cm

Q5. A triangle has an area of 84 cm² and a height of 12 cm. What is its base?

A. 7 cm B. 12 cm C. 14 cm D. 21 cm E. 28 cm

Q6. A cube has a volume of 216 cm³. What is its total surface area?

A. 36 cm² B. 144 cm² C. 180 cm² D. 216 cm² E. 1,296 cm²

Q7. Turf costs £7 per square metre. How much does it cost to turf a lawn measuring 9 m by 4 m?

A. £91 B. £182 C. £220 D. £252 E. £280

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Q8. A swimming pool measures 12 m by 8 m. A paved area 2 m wide runs all the way around the outside. What is the area of the paving?

A. 80 m² B. 88 m² C. 96 m² D. 104 m² E. 192 m²

Q9. How many cubes of side 10 cm fit inside a box measuring 40 cm by 30 cm by 20 cm?

A. 12 B. 20 C. 24 D. 30 E. 60

Q10. A rectangle has an area of 60 cm² and a width of 5 cm. What is its perimeter?

A. 17 cm B. 22 cm C. 30 cm D. 34 cm E. 48 cm

Q11. A tank measures 1 m by 50 cm by 40 cm. How many litres does it hold when full? (1 litre = 1,000 cm³)

A. 20 litres

B. 50 litres

C. 100 litres

D. 200 litres

E. 2,000 litres

Q12. A square has sides of 4 cm. If every side is made 3 times longer, how many times bigger is the area?

A. 3 times B. 6 times C. 9 times D. 12 times E. 27 times

Q13. A triangle has a base of 25 cm and a height of 8 cm. What is its area?

A. 33 cm² B. 66 cm² C. 100 cm² D. 200 cm² E. 400 cm²

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Q14. A rectangle has a length twice its width and an area of 72 cm². What is its perimeter?

A. 24 cm B. 30 cm C. 36 cm D. 42 cm E. 48 cm

Q15. A cube has edges of 10 cm. What is its total surface area?

A. 100 cm² B. 400 cm² C. 600 cm² D. 1,000 cm² E. 6,000 cm²

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