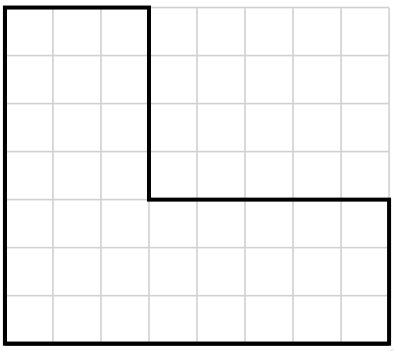
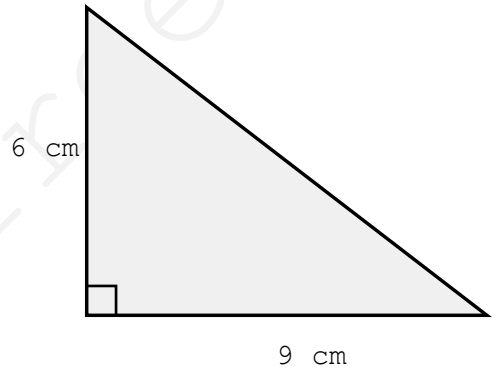
Area, Perimeter & Volume: Medium Practice Paper 7

Q1. Each square on this grid is 1 cm by 1 cm. What is the area of the shape?



A. 30 cm² *B.* 33 cm² *C.* 36 cm² *D.* 40 cm² *E.* 44 cm²

Q2. What is the area of this right-angled triangle?



A. 15 cm² *B.* 18 cm² *C.* 27 cm² *D.* 30 cm² *E.* 54 cm²

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Q3. Which of these has the same area as a rectangle measuring 8 cm by 6 cm?

A. A rectangle 12 cm by 4 cm

B. A square of side 6 cm

C. A square of side 7 cm

D. A rectangle 16 cm by 2 cm

E. A triangle with a base of 8 cm and a height of 6 cm

Q4. A cuboid is built from exactly 24 identical 1 cm cubes. Which of these could NOT be its measurements?

A. 1 cm by 4 cm by 6 cm

B. 2 cm by 2 cm by 6 cm

C. 2 cm by 3 cm by 4 cm

D. 1 cm by 2 cm by 12 cm

E. 2 cm by 3 cm by 5 cm

Q5. One face of a cube has an area of 16 cm². What is the total surface area of the cube?

A. 64 cm² *B.* 80 cm² *C.* 96 cm² *D.* 100 cm² *E.* 256 cm²

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Q6. Ravi needs 20 m² of turf. The table shows what three suppliers charge. Which supplier is cheapest for the turf he needs?

Supplier	Price
Green Lawns	£6 per m²
Turf Co	£110 for 20 m²
Fresh Grass	£58 for 10 m²

A. Green Lawns

B. Turf Co

C. Fresh Grass

D. Green Lawns and Turf Co cost the same

E. All three cost the same

Q7. A rectangle measures 6 cm by 4 cm. Its length is doubled but its width stays the same. What happens to its area?

A. It stays the same

B. It is halved

C. It doubles

D. It is 3 times bigger

E. It is 4 times bigger

Q8. Two squares of side 5 cm are joined edge to edge to make a rectangle. How much smaller is the perimeter of the rectangle than the two separate perimeters added together?

A. 5 cm *B.* 10 cm *C.* 15 cm *D.* 20 cm *E.* 25 cm

Q9. A juice carton is a cube with edges of 10 cm. How many millilitres does it hold when full? (1 cm³ = 1 ml)

A. 100 ml *B.* 300 ml *C.* 500 ml *D.* 1,000 ml *E.* 10,000 ml

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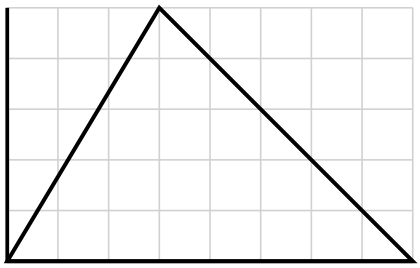
Q10. Each square on this grid is 1 cm by 1 cm. What is the area of this triangle?



A. 16 cm² *B.* 18 cm² *C.* 20 cm² *D.* 24 cm² *E.* 40 cm²

Q11. It costs £96 to carpet a room measuring 4 m by 3 m. What is the price of the carpet per square metre?

A. £6 *B.* £8 *C.* £10 *D.* £12 *E.* £24

Q12. A solid is made from two cuboids joined together. One measures 5 cm by 4 cm by 2 cm and the other measures 3 cm by 4 cm by 2 cm. What is the total volume?

A. 56 cm³ *B.* 60 cm³ *C.* 64 cm³ *D.* 72 cm³ *E.* 80 cm³

Q13. A rectangle measures 30 cm by 20 cm. What is its area in square metres? (10,000 cm² = 1 m²)

A. 0.006 m² *B.* 0.06 m² *C.* 0.6 m² *D.* 6 m² *E.* 60 m²

Q14. A floor measuring 2 m by 1.5 m is covered with square tiles of side 25 cm. The tiles come in boxes of 10. How many boxes are needed?

A. 4 *B.* 5 *C.* 6 *D.* 8 *E.* 48

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Q15. A square has an area of 49 cm^2. Two of these squares are placed side by side to make a rectangle. What is the perimeter of the rectangle?

A. 28 cm *B.* 35 cm *C.* 42 cm *D.* 49 cm *E.* 56 cm

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