

Mathematics

General past paper type questions
Homework #8



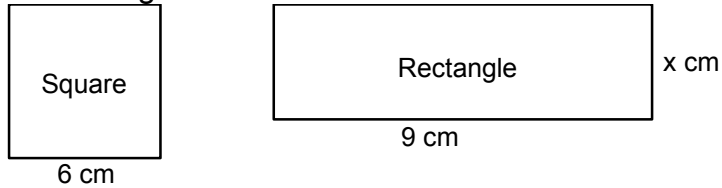
Show all working. State answers to 1 decimal place where appropriate.



Non-calculator section

1. a) Simplify $8g + 7h - 4g - 2h$ b) Find $\frac{3}{7}$ of £35 c) Find 80×12.7

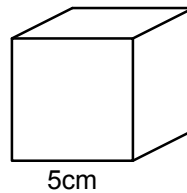
2. This square and this rectangle have the same area. Calculate the length of 1 side of the rectangle.



3. Simplify the following ratios?

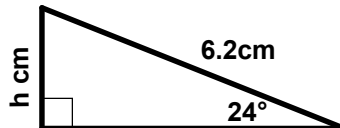
- (A) 12:24 (B) 7:49 (C) 121:132 (D) 17:51

4. Calculate the **volume** of this cube

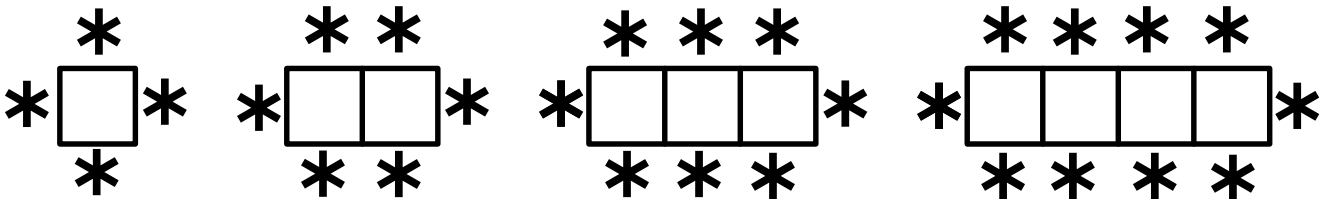


Calculator section

5. Calculate h.



6.



a) Copy and complete the table.

Number of boxes (b)	1	2	3	4	20
Number of stars (S)	4	6			

- b) Find a formula for **S** in terms of **b**. ($S = \dots$)
- c) How many stars would fit around 100 rectangles?

7. The cost (c) pounds of staying at a youth hostel varies with the number of days (d) that I stay there.

- a) Write a formula connecting c and d.
- b) When I stayed for 7 days, the bill came to £74.20. What will it cost to stay there for 10 days?