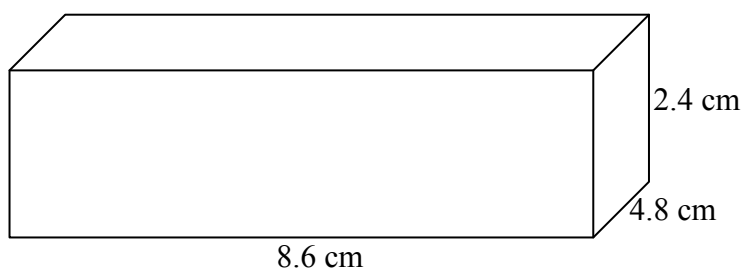


REVISION SHEET 5

CALCULATOR ALLOWED

1.
 - a) The population of a country increased from 35 000 000 to 45 500 000. What percentage increase is this?
 - b) What will be the amount if £3000 is invested for 3 years at the rate of 5% compound interest per annum?
2.
 - a) A solid cuboid measures 8.6 cm by 4.8 cm by 2.4 cm, as shown in the diagram. Calculate its volume, clearly stating the units of your answer.



- b) Calculate the total surface area of the cuboid.
3. Mr. and Mrs. Willis have just received their electric bill. The details were as follows.

Previous meter reading	18 238
Present meter reading	19 115
Cost per unit	6.04 pence per unit
Fixed standing charge	£12.13.
VAT	5%

Find the total cost of the electric bill, including VAT.

4. Write down, in terms of n , the n^{th} term of **each** of the following sequences.

- | | | | | | |
|----|-----|-----|------|-------|-------|
| a) | 3 | 7 | 11 | 15 | |
| b) | 0 | 2 | 4 | 6 | |
| c) | 2×1 | 5×6 | 8×11 | 11×16 | |
| d) | 1×3 | 2×6 | 3×9 | 4×12 | |

5. Solve the following equations.

a)	$\frac{15-6x}{6} = 4$	b)	$\frac{6x-3}{2} - \frac{2x}{5} = 5.$
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6. A solution of the equation $x^3 + 5x - 25 = 0$ lies between $x = 2$ and $x = 3$. Use the method of trial and improvement to find this solution correct to one decimal place.

7. Make d the subject of the following formulas:

i)	$h = \sqrt{5t-d}$
ii)	$g + h = \sqrt{d+3t}.$

8. Write the following numbers in standard form.
 a) 340 b) 2.5 c) 0.0062.

9. Find, in standard form, the value of:

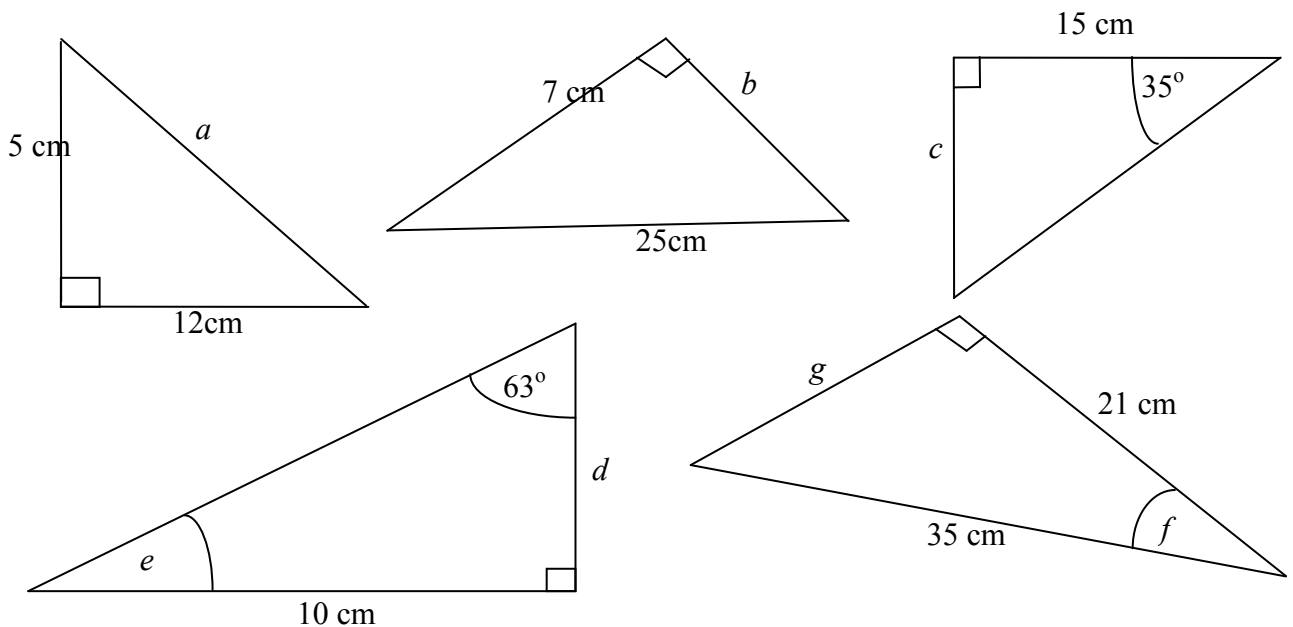
- a) $(8.1 \times 10^{-2}) \times (6.5 \times 10^{-4})$ b) $\frac{120168}{0.065}$.

10. A biologist measures the heights of 90 shrubs to the nearest cm. The following table shows her results.

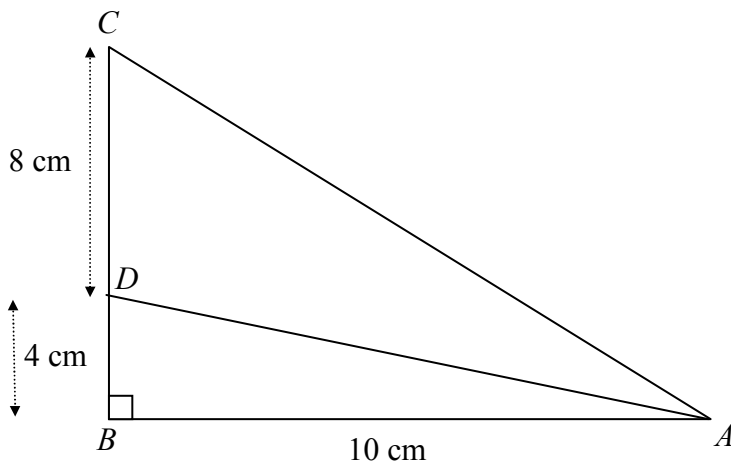
Height (to nearest cm)	1 to 5	6 to 10	11 to 15	16 to 20	21 to 30
Frequency	20	32	16	12	10

Calculate an estimate of the mean height of the shrubs in the sample.

11. Use Pythagoras or $S^O_H C^A_H T^O_A$ to calculate the sides or angles labelled with letters.



12.



The diagram shows a sail ABC with a support rod AD . The length of AB is 10 cm and the distances BD and CD are 4 cm and 8 cm respectively. Angle ABD is 90° .

Calculate the size of angle CAD .

