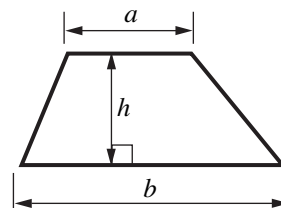
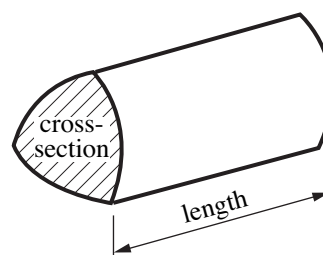


Formulae Sheet

Area of trapezium = $\frac{1}{2}(a + b)h$



Volume of prism = (area of cross-section) \times length



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- 1 (a) Work out.

$$\frac{2}{3} - \frac{1}{4}$$

(a)..... [2]

- (b) Write the following in order of size, starting with the **smallest**.

$$\frac{2}{3} \quad \frac{7}{10} \quad 68\% \quad 0.6$$

.....
smallest

[3]

5	
---	--

- 2 (a) Sam simplifies $p \times p \times p \times p \times p$.
She thinks the answer is $5p$.

Explain why her answer is wrong.

.....
.....
..... [1]

- (b) Find the value of $6x + 10$ when $x = -3$.

(b) [2]

- (c) Factorise.

$$6x + 10$$

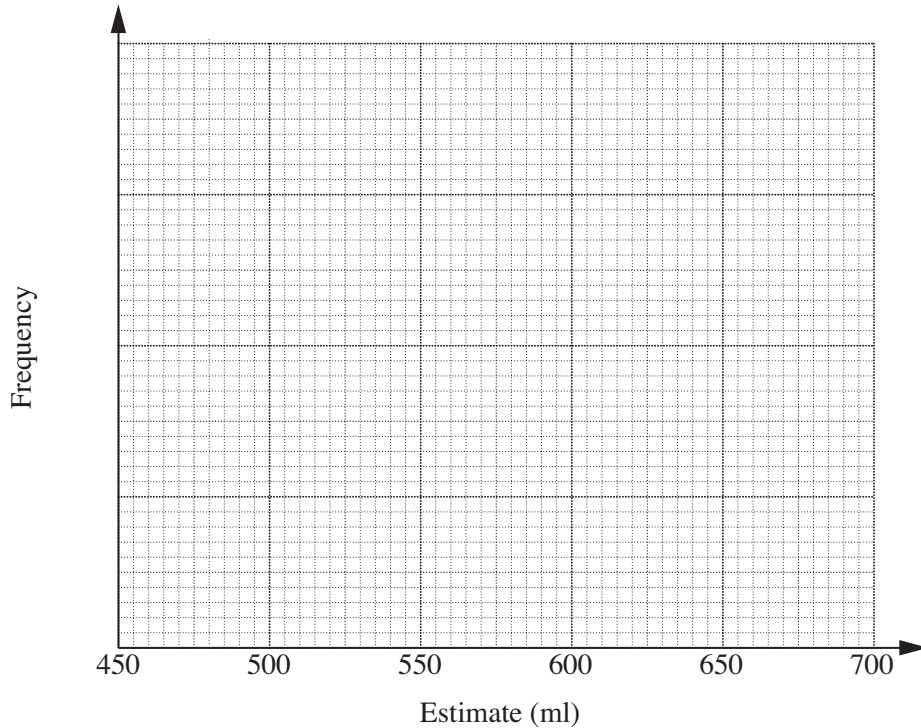
(c) [1]

4	
---	--

- 3 Eighty students were asked to estimate the amount of liquid in a bottle. Their estimates are summarised in this table.

Estimate (e ml)	$450 < e \leq 500$	$500 < e \leq 550$	$550 < e \leq 600$	$600 < e \leq 650$	$650 < e \leq 700$
Frequency	4	10	16	34	16

- (a) Draw a frequency diagram to represent the information.



[3]

- (b) What is the modal group?

(b) [1]

- (c) Sian said that the smallest estimate was 450 ml.

Explain why this cannot be true.

.....

 [1]

- (d) 16 out of the 80 students estimated more than 650 ml.

What fraction of the students is this?
Give your answer in its simplest form.

(d) [2]

7	

- 4 Mushrooms cost £2.45 per kilogram.

Work out the cost of 2.6 kg of mushrooms.

You must show your working.

£ [3]

3	

- 5 Tom puts one party hat into each Christmas cracker.
The hats are red, yellow or green.

The probability that a cracker contains a red hat is 0.35.
The probability that a cracker contains a yellow hat is 0.4.

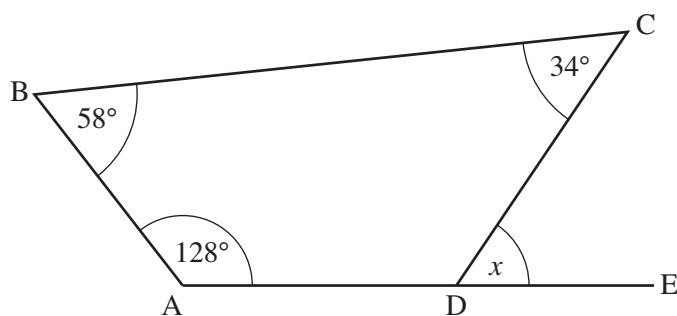
What is the probability that a cracker contains a green hat?

..... [2]

2

6

7



Not to scale

In the diagram, ABCD is a quadrilateral.
ADE is a straight line.

(a) Work out angle x .

(a)..... ° [3]

(b) Is BC parallel to AD?
Use angles to explain your answer.

..... because
.....
..... [1]

4

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