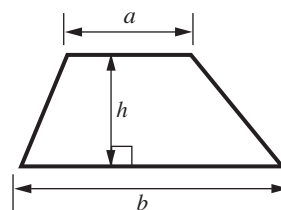
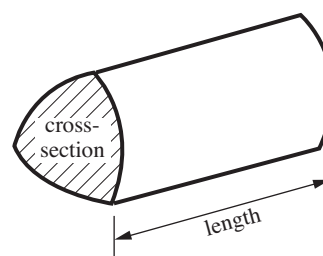


Formulae Sheet

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



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



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- 1 (a) Find the cube root of 64.

(a) [1]

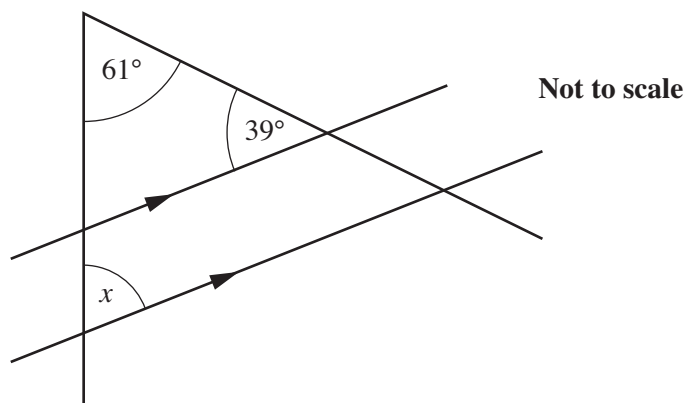
- (b) Simplify $\frac{5^7}{5^3}$

Give your answer as a power of 5.

(b) [1]

2

2



Calculate the size of angle x .
Give a reason for each step of your working.

$x = \dots\dots\dots^\circ$ because

.....

..... [3]

3

- 3 Use ruler, compasses and pencil only to answer this question.
Leave in all your construction lines.

PQR is an isosceles triangle.
 $PQ = 6 \text{ cm}$, $PR = QR = 8 \text{ cm}$.

- (a) **Construct** triangle PQR.
 The base PQ is drawn for you.

P ————— Q

[1]

- (b) **Construct** the bisector of angle P.

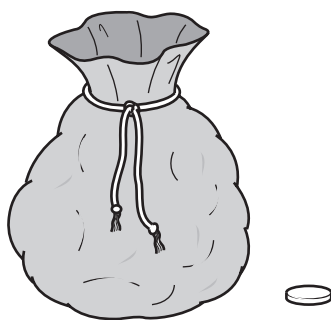
[2]

- (c) A point S is inside the triangle.
 It is less than 4 cm from P **and**
 closer to PQ than PR.

Construct and shade the region which contains S.

[2]





A bag contains red, blue and green counters.
A counter is drawn at random from the bag.
The probability that it is red is 0.4.
The probability that it is blue is 0.25.

(a) What is the probability that it is green?

(a) [2]

(b) There are 80 counters in the bag.

How many of them are blue?

(b) [2]

4

5 (a) Write 40 as a product of prime factors.

(a) [2]

(b) (i) Find the lowest common multiple (LCM) of 40 and 24.

(b)(i) [2]

(ii) Find the highest common factor (HCF) of 40 and 24.

(ii) [1]

5	

6 (a) Solve.

(i) $\frac{x}{5} = 15$

(a)(i) [1]

(ii) $3x + 13 = 2(x + 9)$

(ii) [3]

(b) Rearrange this formula to make b the subject.

$$P = 2b + 2h.$$

(b) [2]

6	
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