



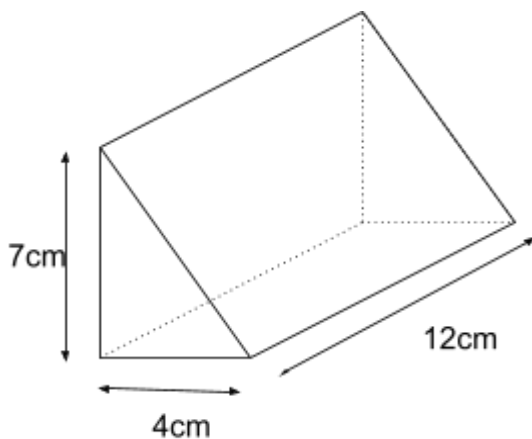
Edexcel IGCSE Maths: First 40 Marks Paper III

1. Point A has the coordinates (2,4). Point B has the coordinates (5,8). Find the distance from point A to point B. [3]

2. A normal circular pizza weighs 200g. It is cut into 20 equal slices from the centre to the edge.
 - a. What is the angle at the centre of each slice? [2]

 - b. What will be the average weight of each slice? [1]

3. The diagram shows a triangular prism. Calculate the volume of the prism. [3]

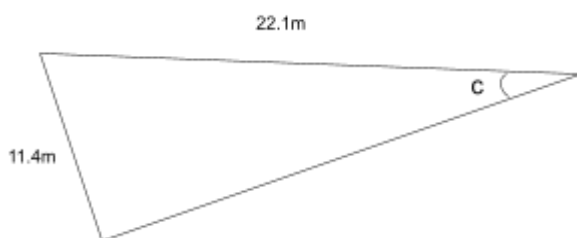


4.

- a. A triangle has sides of 5cm, 12cm and 13cm. Prove that this triangle must be right-angled.

[2]

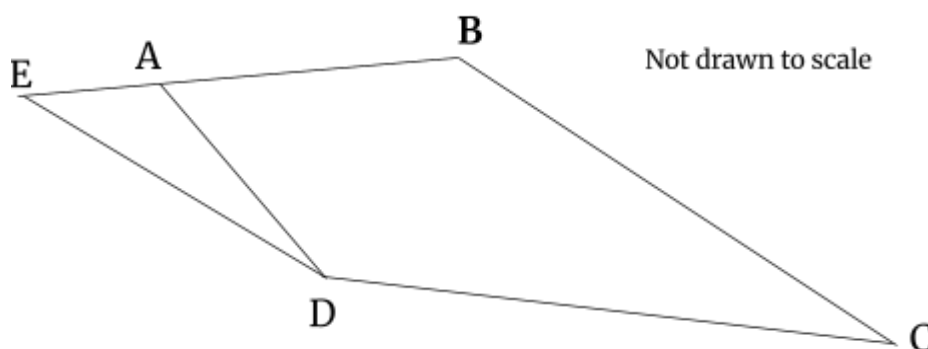
- b. Find the angle c in the right-angled triangle below. Give your answer to 3sf.



[2]

5. In the diagram, EAB is a straight line. ABCD is a quadrilateral with the following angles:

$$\angle ABC = 152^\circ \quad \angle BCD = 47^\circ \quad \angle ADC = 121^\circ \quad \angle EDC = 149^\circ$$



Find angle AED. Explain your working at each stage.

[4]

6. Albie, Bern and Clara share some sweets in the ratio 7:6:5. Albie gets 35 sweets.

a. How many sweets were there in total?

[2]

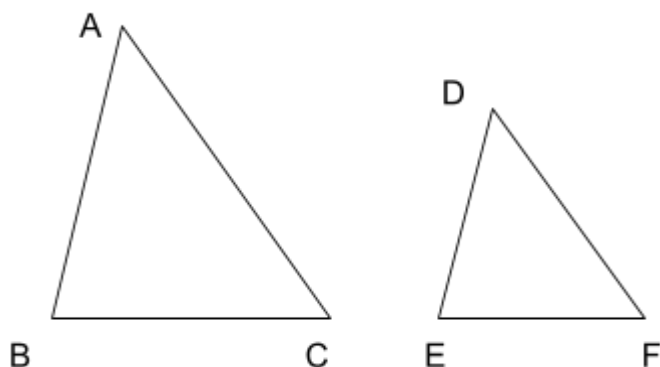
b. Bern eats half his sweets and Clara eats 5 of hers. What is the new ratio of Bern and Clara's remaining sweets in its simplest form?

[3]

7. ABC and DEF are similar triangles.

Length AB = 9cm Length DE = 6cm Length DF = 8cm

Find length AC.

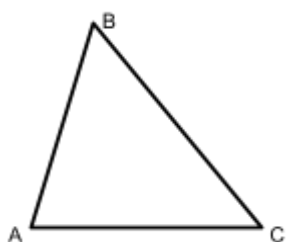


[2]

8. Triangle ABC has dimensions as follows:

AB is 3cm less than AC. BC is 2cm more than AC. The triangle has a perimeter of 11cm.
Find the length of BC.

[2]



9. I live in a town where the traffic lights have just two colours, red or green. On my way to work I have to drive through 2 sets of traffic lights.
The probability that the first set is green is $\frac{1}{3}$.
The probability that the second set is green is $\frac{1}{2}$.

a. Draw a tree diagram to represent this information.

[2]

b. What is the probability that the lights are red at both junctions?

[2]

9. The table shows the height, h , in cm, of the members of a volleyball club.

Height (h) cm	Number of players		
$120 \leq h < 130$	4		
$130 \leq h < 140$	10		
$140 \leq h < 150$	17		
$150 \leq h < 160$	9		
$160 \leq h < 170$	7		
$170 \leq h < 180$	3		

a. Find an estimate for the mean height of the members of the club. Give your answer to 3sf.

[3]

b. What percentage of the members of the club are less than 140cm tall?

[2]

10.

a. Factorise fully:

$$15a^3 - 40ab^2$$

[1]

b. Simplify:

$$36x^3y^7z \div 9xy^2z^5$$

[2]

c. Solve, giving your answer to 1 decimal place:

$$7x^2 - 8x - 13 = 0$$

[3]