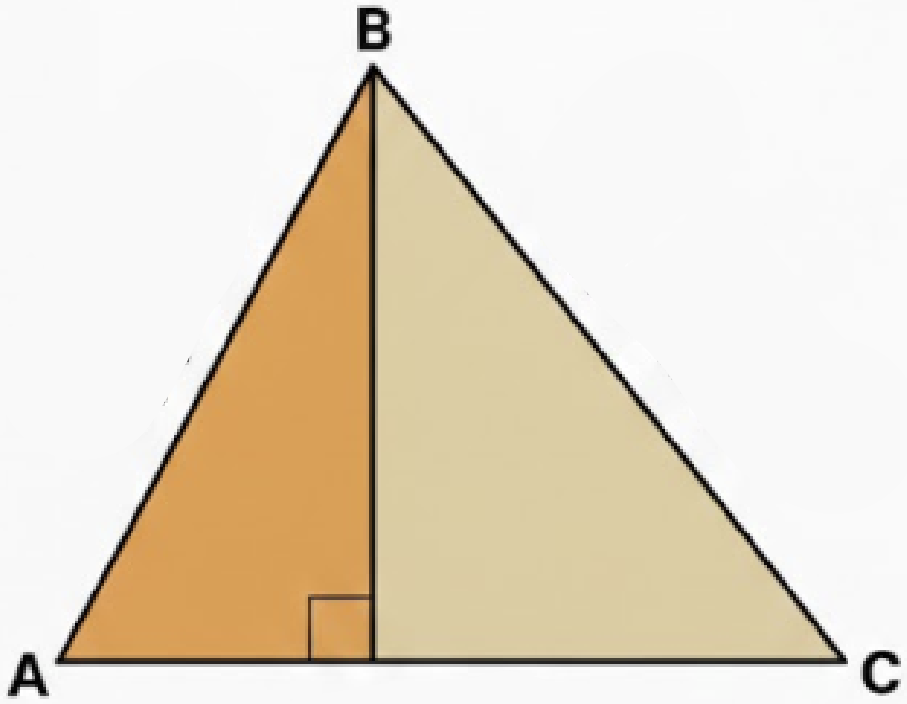
EDEXCEL IGCSE MATHEMATICS

UNIT 1 (MODULAR)

GEOMETRY – TRIGONOMETRY (SINE & COSINE RULE)

QP & MS (2018 – 2025)



COMPILED BY:
SIR MUHAMMAD ABDULLAH SHAH

EXAM PREP ARENA
HUB OF EXAM PREPARATION

An Online Extensive Course

EDEXCEL IGCSE MATHEMATICS MODULAR FOR MAY & OCT 2026

by Sir Muhammad Abdullah Shah

Get ready for your **Edexcel IGCSE Mathematics Modular Unit 1 & 2** exams with our comprehensive course designed to cover the entire syllabus and provide intense practice with past exam questions.

Registrations Open

1. Available Sessions
   One-on-One
2. Class Modality
   Live classses on Google Meet
3. Starting From
   All year available
4. Contact Us
   +92 325 3595282

Register Now

+92 325 3595282 | exampreparena | Exam Prep Arena

EXAM PREP ARENA
HUB OF EXAM PREPARATION

1. Nov 2025 1H/Q19

The diagram shows triangle ABC

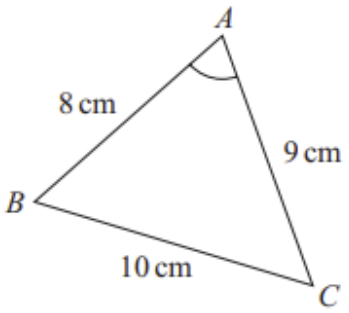


Diagram **NOT** accurately drawn

$AB = 8\,\text{cm}$ $BC = 10\,\text{cm}$ $CA = 9\,\text{cm}$

Work out the size of angle BAC
Give your answer correct to one decimal place.

..... cm

(Total for Question 20 is 3 marks)

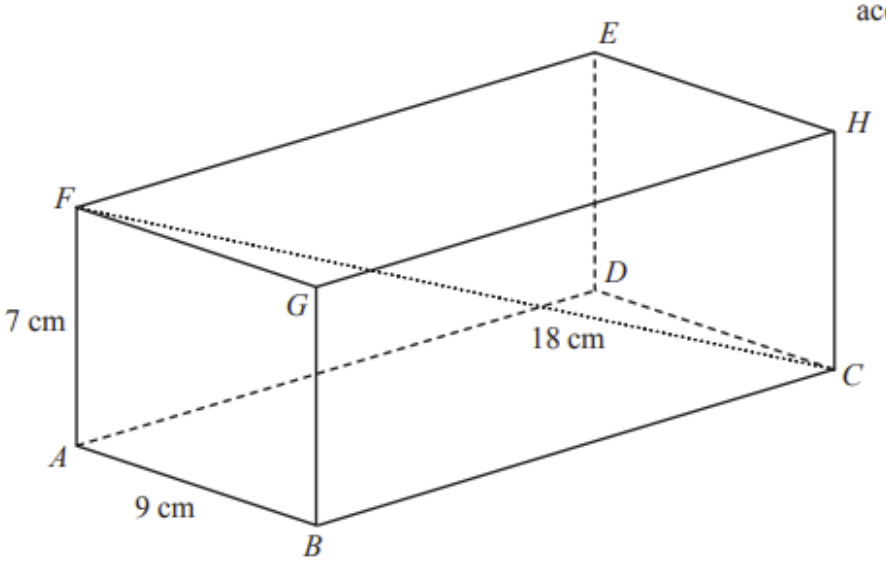
.....

(Total for Question 19 is 3 marks)

2. June 2025 1H/Q20

The diagram shows cuboid *ABCDEFGH*

Diagram **NOT** accurately drawn



$AB = 9\,\text{cm}$ $AF = 7\,\text{cm}$ $FC = 18\,\text{cm}$

Calculate the length of BC
Give your answer correct to 3 significant figures.

..... cm

(Total for Question 20 is 3 marks)

3. Jan 2023 1HR/Q17

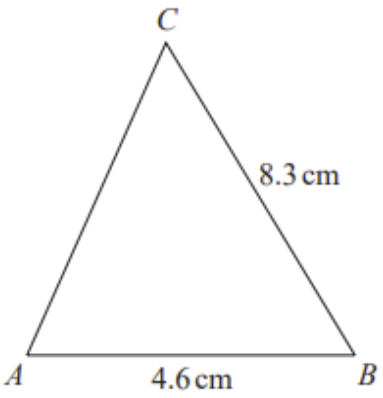


Diagram **NOT** accurately drawn

$AB = 4.6\,\text{cm}$ $BC = 8.3\,\text{cm}$ angle ABC is acute

The area of triangle ABC is $12\,\text{cm}^2$

Work out the perimeter of triangle ABC
Give your answer correct to 3 significant figures.

..... cm

(Total for Question 17 is 5 marks)

MARKING SCHEME

1. Nov 2025 1H/Q19

19	$10^2 = 8^2 + 9^2 - 2\times8\times9\times\cos BAC$ oe		3	M1	correct statement of the cosine rule for this angle in any form
	$\cos BAC = \frac{8^2+9^2-10^2}{2\times8\times9}$ oe **or** $\cos BAC = \frac{45}{144}$ oe **or** $\cos BAC = \frac{5}{16}$ oe eg $\cos BAC = 0.31(25)$			M1	correct statement for angle BAC, this mark implies the previous M mark
	Correct answer scores full marks (unless from obvious incorrect working)	71.8		A1	accept 71.7 – 71.8 SCB1 for an answer of 49.4 to 49.5 **or** 58.7 to 58.8
					Total 3 marks

2. June 2025 1H/Q20

20	eg $(AC^2 =)18^2 - 7^2 (= 275)$ **or** $(AC =)\sqrt{18^2-7^2} (= \sqrt{275}$ or $5\sqrt{11}$ or $16.5(831...))$ **or** $(FB^2 =)9^2 + 7^2 (= 130)$ **or** $(FB =)\sqrt{9^2+7^2} (= \sqrt{130}$ or $11.4(017...))$ **or** $(GC^2 =)18^2 - 9^2 (= 243)$ **or** $(GC =)\sqrt{18^2-9^2} (= \sqrt{243}$ or $9\sqrt{3}$ or $15.5(884...))$ **or** $18^2 = (BC)^2 + 7^2 + 9^2$ oe		3	M1	for method to find AC^2 **or** AC **or** FB^2 **or** FB **or** GC^2 **or** GC **or** for a correct equation using BC^2 and 18 and 7 and 9 other longer ways to find AC, FB, GC may be used but must be a complete method eg $\angle FCA = \sin^{-1}\left(\frac{7}{18}\right) (= 22.88...)$ **and** $AC = \frac{7}{\tan"22.88..."}$
	eg $"275" - 9^2 (= 194)$ **or** $"16.5..."^2 - 9^2 (= 194)$ **or** $18^2 - "130" (= 194)$ **or** $18^2 - "11.4..."^2 (= 194)$ $"243" - 7^2 (= 194)$ **or** $"15.5..."^2 - 7^2 (= 194)$ **or** $18^2 - 7^2 - 9^2 (= 194)$ **or** $\angle FCB = \sin^{-1}\left(\frac{"11.4"}{18}\right) (= 39.3(036...))$ **and** $\cos"39.3" = \frac{(BC)}{18}$ or $\tan"39.3" = \frac{"11.4"}{(BC)}$ oe			M1	for complete method to find BC^2 other longer ways to find BC may be used but must be a complete method, leading to a trig equation in BC
	Correct answer scores full marks (unless from obvious incorrect working)	13.9		A1	accept 13.8 to 14
					Total 3 marks

3. Jan 2023 1HR/Q17

17	$12 = \frac{1}{2}\times4.6\times8.3\times\sin ABC$ or $\frac{4.6h}{2} = 12$ $(h = 5.217....)$		5	M1	a correct equation for the area to find angle ABC or to find the perpendicular height of the triangle.
	$ABC = \sin^{-1}\left(\frac{12}{\frac{1}{2}\times4.6\times8.3}\right)$ $(= 38.947...)$ oe or $ABC = \sin^{-1}(0.6286)$ $(= 38.947...)$ or $ABC = \sin^{-1}\left(\frac{"5.217..."}{8.3}\right) (= 38.947...)$ or $BM^2 = 8.3^2 - "5.217..."^2$			M1	A correct method to find angle ABC or a correct method to find BM^2 where CMB is 90°
	$AC^2 = 4.6^2 + 8.3^2 - 2\times4.6\times8.3\times\cos("38.947")$ [allow cos39°] or $AC^2 = 30.6(627...)$ $BM = \sqrt{8.3^2 - "5.217..."^2}$ $(=6.455...)$			M1	a correct start to the cosine rule to find length AC or a fully correct method for BM
	or $AC = \sqrt{"30.6(6...)"}$ **or** 5.5(3739…)			A1	A correct value for AC which can be the square root of 30.6(6…)
	Correct answer scores full marks (unless from obvious incorrect working)	18.4		A1	Allow answers in range 18.4 to 18.45
					Total 5 marks