APOLLO

FBISE Mathematics Class 9
Topical workbook - Volume 2 of 3

140 questions arranged by official framework topic.
National Curriculum 2022-23; supported examinations from 2027.

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Coordinate Geometry

Domain B: Geometry

FBISE model paper | Section A Q16 | 0.75 marks

16	Two schools are located at points (2, 3) and (8, 11) on a map. What is the distance between them?	100 units	14 units	10 units	5 units

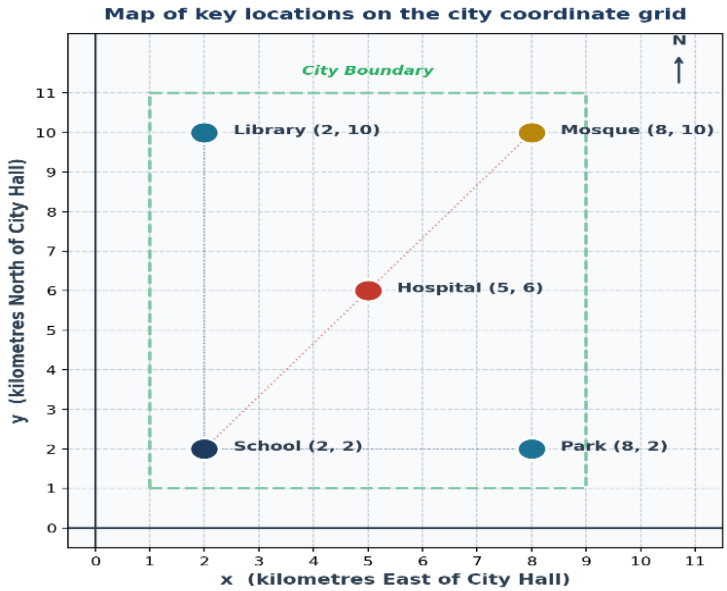
FBISE model paper | Section A Q30 | 0.75 marks

30	The vertices of a right-angled triangle are (0, 0), (6, 0), and (0, 8). What is the midpoint of the hypotenuse?	$(3, 4)$	$(6, 8)$	$(3, 0)$	$(0, 4)$

FBISE model paper | Section A Q45 | 0.75 marks

Scenario for MCQs (45-48)

Study the given map and answer the following questions.

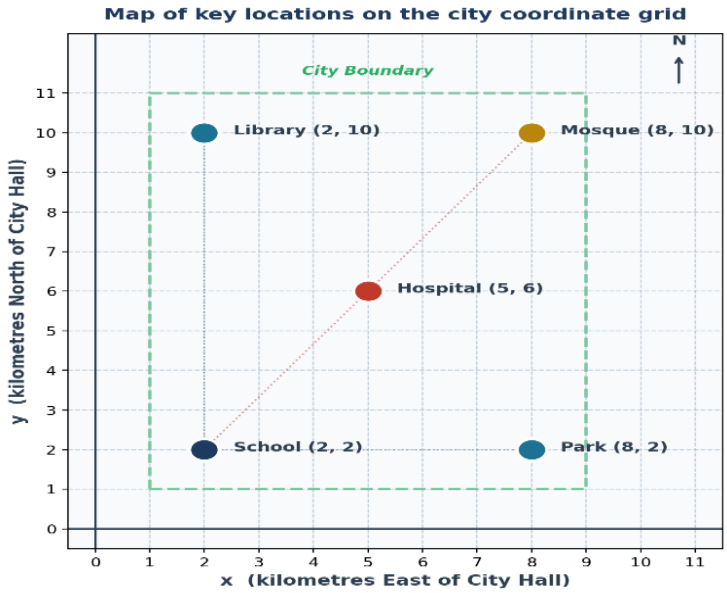


45	What is the distance between School and Park?	4 km	6 km	8 km	10 km

FBISE model paper | Section A Q46 | 0.75 marks

Scenario for MCQs (45-48)

Study the given map and answer the following questions.

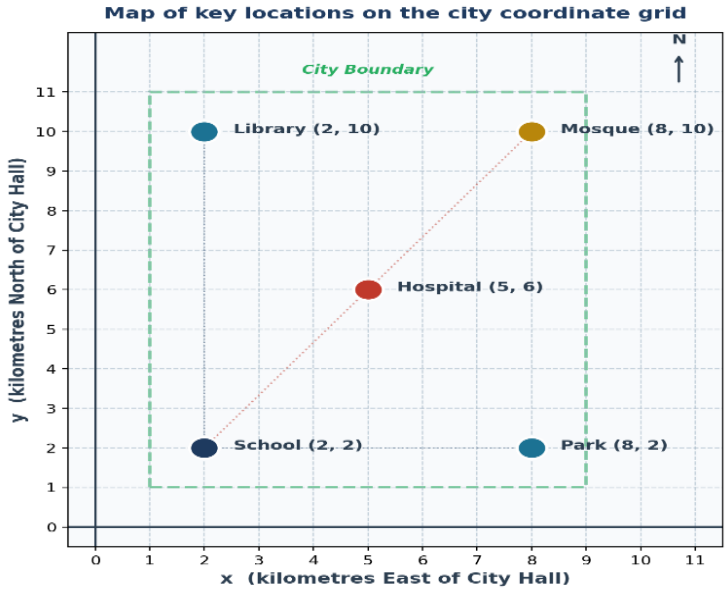


46	What is the midpoint of the line segment joining Library and Park?	(4, 5)	(5, 5)	(5, 6)	(6, 5)

FBISE model paper | Section A Q47 | 0.75 marks

Scenario for MCQs (45-48)

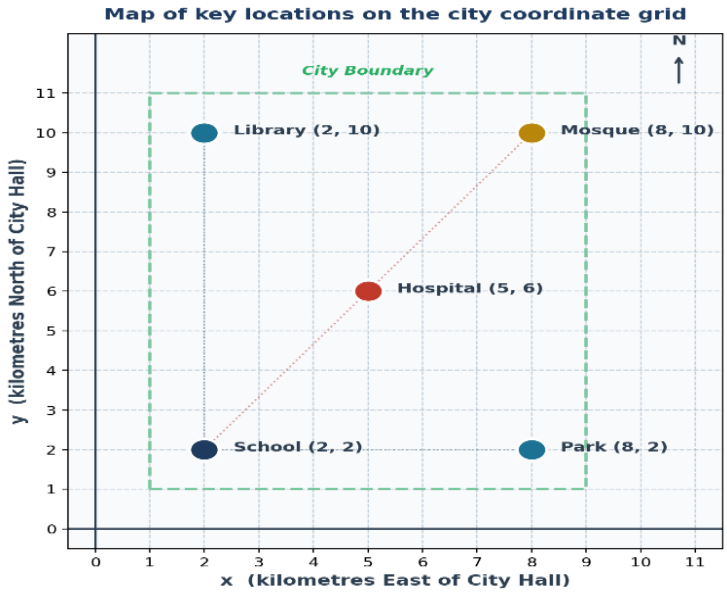
Study the given map and answer the following questions.



47	What is the slope of the line joining two points (school and mosque)?	$\frac{4}{3}$	$\frac{3}{4}$	$\frac{6}{5}$	$\frac{5}{6}$

Scenario for MCQs (45-48)

Study the given map and answer the following questions.



48	Which pair of locations on the map is exactly 8 km apart?	School & Hospital	Park & Hospital	Park & Mosque	Library & Hospital

OR	A line cuts intercepts on axes such that x-intercept is three times y-intercept and the line pass through $P(3,2)$. Write the equation of the line in standard form.	3

A company wants to install a new cell phone tower so that it is equidistant from two existing towers located at **P(2,5)** and **Q(8,3)**. ***Find equation*** of the locus where the new tower should be placed. ایک کمپنی ایک نیا ٹاور لگانا چاہتی ہے جو ان کے پہلے سے نقاط **P(2,5)** اور **Q(8,3)** پر لگے ٹاورز سے مساوی فاصلہ پر ہوں۔ اس لوکس کی مساوات معلوم کریں جہاں نیا ٹاور لگنا چاہیے۔	**04**	**OR**	Transform the given equation in: درج مساوات کو مطلوبہ شکلوں میں تبدیل کریں $3x+2y-18=0$ **a** Slope-Intercept form: ***(y=mx+c)***. سلوپ انٹرسپٹ **b** Two-Intercepts form $\left(\frac{x}{a}+\frac{y}{b}=1\right)$ دو انٹرسپٹ	**04**

First Annual 2025 | Section B Q2(vii) OR | 4 marks

Transform the given equation in: $2x+7y-28=0$		درج مساوات کو مطلوبہ شکلوں میں تبدیل کریں	
a	Slope-Intercept form: ***(y=mx+c)***.	سلوپ انٹرسپٹ	**04**
b	Two-Intercepts form $\left(\frac{x}{a}+\frac{y}{b}=1\right)$	دو انٹرسپٹ	

Second Annual 2025 | Section B Q2(iii) OR | 4 marks

Find the equation of a line having slope 3 and passing the through the intersection of two lines of: $2x + y = 4$ and $x - y = 1$	**04**

Second Annual 2025 | Section B Q2(vi) | 4 marks

(vi)	Find the gradient (slope) of a line joining points $(1,2)$ and $(4,8)$. Then find the equation of the line. نقاط $(1,2)$ اور $(4,8)$ کو ملانے والی لائن کا سلوپ (gradient) معلوم کریں، پھر اس	04

Second Annual 2025 | Section B Q2(vii) OR | 4 marks

Find equation of a line passing through $(-1,3)$ with slope -2. Verify that it passes through a point $(2,-3)$.	04

OR	calculate: **a.** The probability of selecting a white ball. **b.** The probability of selecting a black ball **c.** The sum of all the probability
OR	An earthquake that occurred in Pakistan in 2005, measured 7.6 on the Richter scale. In 1978, an earthquake in China measured 8.2 on the Richter scale. How many times, the China's earthquake was stronger than the Pakistan's earthquake? (Use $M = \log\left(\frac{I}{I_o}\right)$)
OR	Find the equation of a line through the point $(1,3)$ and the point of intersection of lines $2x-3y+4=0$ and $4x+y-1=0$.

(vi)	Find the gradient of the line passing through the points $A(2,3)$ and $B(6,11)$.	**04**	**OR**

2+2	OR	calculate: **a.** The probability of selecting a white ball. **b.** The probability of selecting a black ball **c.** The sum of all the probability
04	OR	An earthquake that occurred in Pakistan in 2005, measured 7.6 on the Richter scale. In 1978, an earthquake in China measured 8.2 on the Richter scale. How many times, the China's earthquake was stronger than the Pakistan's earthquake? (Use $M = \log\left(\frac{I}{I_o}\right)$)
3+1	OR	Find the equation of a line through the point $(1,3)$ and the point of intersection of lines $2x-3y+4=0$ and $4x+y-1=0$.
3+1	OR	Factorize the quadratic expression: $3x^2+16x-12$
04	OR	Verify that $\sin^2\theta+\cos^2\theta=1$
04	OR	Prove by using Venn diagram $(P\cup Q)\cup R = P\cup(Q\cup R)$. $P=\{0,1,2,3\}, Q=\{2,3,4,5,6\}, R\{5,6,7,8,9\}$
2+2	OR	Find the equation of straight line passing through $(-4,-4)$ and parallel to the line with slope -5.

(vi) نقاط $A(2,3)$ اور $B(6,11)$ سے گزرنے والی لائن کی ڈھلوان معلوم کریں۔

1+1 +6	OR	Convert $4x-3y+9=0$ in given forms: **a.** Slope intercept **b.** Two intercepts **c.** Symmetric **d.** Normal	2x4

First Annual 2026 | Section B Q2(vi) | 4 marks

(vi)	Lines AB and CD with coordinates $A(0,3), B(2,8), C(3,10), D(8,k)$ are perpendicular. Find k.	04

First Annual 2026 | Section B Q2(vii) OR | 4 marks

04	OR	Find the equation of the line that crosses the line $y = 2x - 5$ at right angle at the point (3.1).

OR	Convert the following equation into different standard forms: $x-2y+4=0$ **a.** Slope intercept **b.** Two intercepts	**2x4**

b. Two intercepts

c. Symmetric

d. Normal

First Annual 2026 | Section B Q2(v) OR | 4 marks

Find the gradient of the line passing through $(-4,-3)$ and $(2,9)$. Also write equation of this line.	04
A number is chosen at random from a set of whole	

First Annual 2026 | Section B Q2(vii) OR | 4 marks

	b. Chosen number is perfect square.	
OR	Find the equation of straight-line having y-intercept $= 4$ and parallel to the line with slope $\frac{1}{2}$.	04

OR	Convert the $3x+4y-12=0$ in given forms: **a.** Slope intercept **b.** Two intercepts **c.** Symmetric **d.** Normal	**2x4**
	The daily consumption of electricity units of 25	

vi.	A hiking trail rises 500 meters over a horizontal distance of 2 kilometers. What is the slope of a trail? Express the slope in percentage.	4

OR	Given the equation of a line $y = 4x - 2$ and a point $(1, 2)$, how would you determine the equation of a line that passes through this point and is perpendicular to the given line? Express your final answer in the form $y = mx + c$	4

OR	Transform $-2x + 5y = 10$ in the following: (i) Two points form (ii) Two Intercepts form (iii) Symmetric form and (iv) Normal form	8

First Annual 2025 | Section B Q2(ix) | 4 marks

(ix)	Prove that the points $P(0,7)$, $Q(3,-5)$ and $R(-2,15)$ are collinear. ثابت کریں کہ $P(0,7)$, $Q(3,-5)$ اور $R(-2,15)$ ہم خط ہیں۔	04

First Annual 2025 | Section B Q2(viii) OR | 4 marks

Find the value of **m** and **c** for given equation of line: دی گئی مساوات کے لیے **m** اور **c** قیمت معلوم کریں۔ $3x-2y+56=0$	04

Second Annual 2025 | Section B Q2(vi) | 4 marks

(vi)	Plot the given lines and write the coordinates of their intersection. $y = 0.5x + 2, y = -x + 5$ درج خطوط کھینچیں اور ان کے تقاطع کا نقطہ لکھیں۔	04	OR

Second Annual 2025 | Section B Q2(vi) OR | 4 marks

(vi)	Plot the given lines and write the coordinates of their intersection. $y = 0.5x + 2, y = -x + 5$ درج خطوط کھینچیں اور ان کے تقاطع کا نقطہ لکھیں۔	04	OR	Use distance formula to confirm that given points are collinear. $A(1,2), B(4,5), C(7,8)$ فاصلہ فارمولا سے ثابت کریں کہ درج نقاط ایک ہی خط پر واقع ہیں۔	04
(vii)	In a parallelogram if opposite sides and opposite angles are congruent then prove that diagonals			A point P inside $\angle QRS$ is equidistant from RQ and RS. Prove that P lies on the bisector of $\angle QRS$	

First Annual 2026 | Section A Q9 | 1 mark

In point (4,7), 4 is:	y-value	Column	x-value	Position

[redacted] point (4,7), 4 is. نقطہ (4,7) میں، 4 کیا ہے؟	y-value y-ویلیو	Column ستون	x-value x-ویلیو	Position مقام
Points are represented by:	Letters	Lines	Angles	Ordered pairs

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Angle Between Lines

Domain B: Geometry

FBISE model paper | Section A Q19 | 0.75 marks

19	Two intersecting roads form supplementary angles where one angle is three times the other. What is the measure of the smaller angle?	22.5°	45°	90°	135°

FBISE model paper | Section A Q20 | 0.75 marks

20	Two sides of a triangle have slopes 1 and -1. What is the angle between them?	45°	90°	135°	180°

FBISE model paper | Section B Q3 | 3 marks

3	Find the acute angle between the line $y = \sqrt{3}x + 2$ and the x-axis.	3

Find equation of a straight line passing through the point *(3,2)* and the point of intersection of given lines. $x-y-1=0,\ x+y-3=0$	**04**

OR	Points $A(0,0), B(2,0)$ and $C(1,\sqrt{3})$ are the vertices of a ΔABC. Find: نقاط $A(0,0), B(2,0)$ اور $C(1,\sqrt{3})$ ایک مثلث کے راس ہیں، معلوم کریں: **a** Slopes of sides AB, BC and AC تینوں اطراف کی سلوپ **b** Interior angles $\angle A, \angle B$ and $\angle C$ اندرونی زاویے	**08**

Find equation of a straight line passing through point **(–2,4)** and the point of intersection of given lines: $3x+3y-6=0$, $2x-3y-9=0$.	**04**

$P(0,0), Q(4,0)$ and $R(2,4)$ are the vertices of a ΔPQR. Find: نقاط $P(0,0), Q(4,0)$ اور $R(2,4)$ ایک مثلث کے راس ہیں، معلوم کریں:		08
a	Slopes of sides **PQ**, **QR** and **PR** تینوں اطراف کی سلوپ	
b	Interior angles $\angle P, \angle Q$ and $\angle R$ اندرونی زاویے	

Second Annual 2025 | Section C Q3 OR | 8 marks

Find the interior angles of ΔABC with given slopes. $m_{AB} = \frac{1}{4}, m_{BC} = -2, m_{AC} = \frac{5}{2}$	08

First Annual 2026 | Section A Q1(ix) | 1 mark

(ix) Two angles are said to be _____ angles if they add up to 180°.

A. Acute B. Complementary C. Supplementary D. Obtuse

First Annual 2026 | Section B Q2(xii) | 3 marks

(xii) Write the definition of angle and also draw it.

First Annual 2026 | Section C Q3 OR | 8 marks

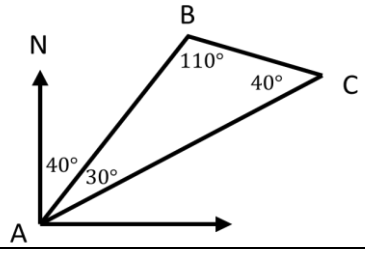
OR	Find the interior angles of triangle whose vertices are $A(-2,0)$, $B(3,0)$ and $C(6,5)$.	**08**

OR	Find equation of line passing through point of intersection of lines. $3x+2y+1=0,\ x-2y+3=0$ and pas sing through point $(-1,0)$.	04

OR	Find the interior angles of triangle XYZ whose vertices are: $X(-3,2), Y(0,-1), Z(3,3)$

Find equation of line passing through point of intersection of lines $2x+y+2=0$, $x-2y+1=0$ and Parallel to $2x-2y+11=0$.	04

Find the interior angles of triangle XYZ whose vertices are: $X(-2,0), Y(1,-4), Z(6,6)$	**08**

Q.2	Question	Marks	Question		Mark
i.	Simplify the expression $\left[(125)^{\frac{1}{3}} \times (25)^{\frac{1}{2}} + (64)^{\frac{2}{3}} \times 6 + (8)^{\frac{2}{3}}\right]^{\frac{-2}{3}}$	4	***OR***	If $X = \{1,3,9\}, Y = \{3,5,7\}$ and $Z = \{3,5,7,9,11\}$ then using Venn diagram, prove that $X \cup (Y \cap Z) = (X \cup Y) \cap (X \cup Z)$	4
ii.	The attached figure shows the position of three points A, B, and C. State the bearing of: B from A; A from B; B from C, and C from B. 	4	***OR***	For $A = \{1,2,3\}, B = \{3,4\}$ (a) List all the ordered pairs of the Cartesian Product $A \times B$, (b) List all the ordered pairs of a relation $R = \{(x,y) \mid x \epsilon A, y \epsilon B \wedge x < y\}$, (c) Find domain and range of the relation R.	4
iii.	Bani Gala had a population of 10,000 people in the year 2015. The population has been growing exponentially at a rate of 2.5% per year. Using the exponential growth formula $P(t) = P_0 e^{rt}$, apply laws of logarithm to	4	***OR***	Find equation of the family of lines passing through a point $(5,2)$ and through the intersection of lines $x + 2y - 10 = 0$ and $2x + y - 2 = 0$.	4

OR	Slopes of the sides of a triangle ABC are given as $m_1 = \frac{3}{2}$, $m_2 = -\frac{3}{2}$ and $m_3 = 2$. Find interior angles of the triangle ABC.	8

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Logic

Domain B: Geometry

(xiii) There can pass _____ through one point.

A. Only one line B. Two lines C. Three lines D. Infinite lines

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Similar Figures

Domain B: Geometry

FBISE model paper | Section A Q17 | 0.75 marks

17	On a toy model car, the length of the door is 3 cm. If the actual car is exactly 40 times larger than the model, what is the length of the door on the actual car?	43 cm	80 cm	120 cm	1200 cm

FBISE model paper | Section A Q18 | 0.75 marks

18	A bakery makes two sizes of similar cube-shaped cakes. The larger cake has sides that are twice as long as the smaller cake. If the small cake requires 1 cup of butter, how many cups of butter are needed for the larger cake?	2 cups	4 cups	8 cups	16 cups

FBISE model paper | Section A Q21 | 0.75 marks

21	Two similar triangles have corresponding sides in the ratio 1: 3. What is the ratio of their areas?	1 : 6	6 : 1	9 : 1	1 : 9

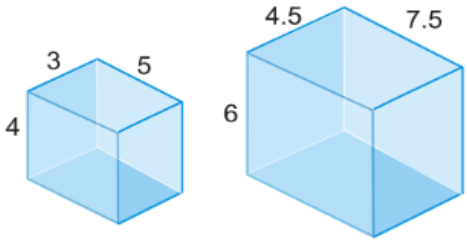
FBISE model paper | Section A Q22 | 0.75 marks

22	A cuboid has volume 1000 cm^3. It is enlarged by a scale factor of 2. What is the volume of the enlarged cuboid?	500 cm^3	2000 cm^3	4000 cm^3	8000 cm^3

FBISE model paper | Section A Q37 | 0.75 marks

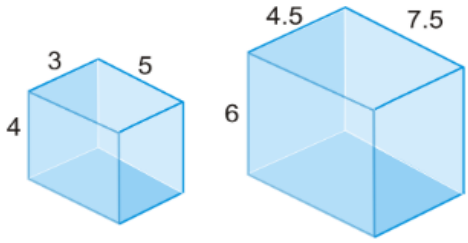
Scenario for MCQs 37 to 40

The given prisms are similar



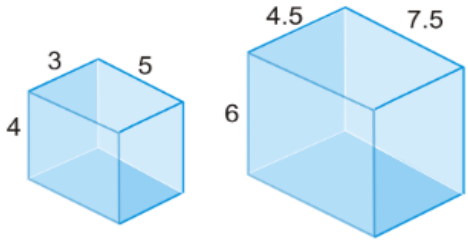
37	What is the linear scale factor from the smaller cuboid to the larger cuboid?	1.25	1.5	2.0	2.25

FBISE model paper | Section A Q38 | 0.75 marks

Scenario for MCQs 37 to 40	**The given prisms are similar**	

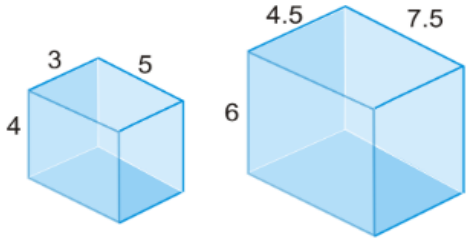
38	The total surface area of the smaller cuboid is 94 cm^2, what is the total surface area of the larger cuboid?	141 cm^2	211.5 cm^2	317.25 cm^2	423 cm^2

FBISE model paper | Section A Q39 | 0.75 marks

Scenario for MCQs 37 to 40	**The given prisms are similar**	

39	The volume of the smaller cuboid is 60 cm^3, what is the volume of the larger cuboid?	90 cm³	135 cm³	202.5 cm³	270 cm³

FBISE model paper | Section A Q40 | 0.75 marks

Scenario for MCQs 37 to 40	**The given prisms are similar**	

40	What is the ratio of the volume of the smaller prism to the volume of the larger prism?	1 : 1.5	1 : 2.25	1 : 3.375	1 : 4.5

6	Two similar rectangles have lengths 6cm and 9 cm. (a) Find ratio of the corresponding sides. (b) Find ratio of the corresponding areas.	3

Two similar metal spheres have radii in the ratio 5 : 2. Find the ratio of their surface areas and volumes. If the smaller sphere has volume $40\pi cm^3$, find the larger sphere's volume.	6

A company wants to install a new cell phone tower so that it is equidistant from two existing towers located at **P(2,5)** and **Q(8,3)**. ***Find equation*** of the locus where the new tower should be placed.	ایک کمپنی ایک نیا ٹاور لگانا چاہتی ہے جو ان کے پہلے سے نقاط **P(2,5)** اور **Q(8,3)** پر لگے ٹاورز سے مساوی فاصلہ پر ہوں۔ اس لوکس کی مساوات معلوم کریں جہاں نیا ٹاور لگنا چاہیے۔	**04**
Two similar triangles have areas in the ratio **25:49**. The base and height of the smaller triangle are **10 cm** and **15 cm**, respectively. Find the corresponding base and height of the larger triangle.	دو متماثل مثلثان کے رقبوں کی نسبت 25:49 ہے۔ اگر ایک مثلث کا قاعدہ 10 سم اور اس کی اونچائی 15 سم ہوں تو دوسر مثلث کا قاعدہ اور اونچائی معلوم کریں۔	**04**

First Annual 2025 | Section B Q2(viii) | 4 marks

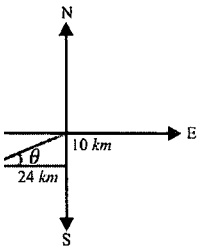
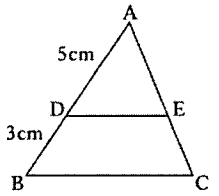
(viii)	A cylindrical water tank has a radius of 5 cm and a height of 12 cm. A second cylindrical tank has a radius of 7.5 cm. Find the height of the second tank if both tanks have the same volume. سلنڈر شکل کے ایک واٹر ٹینک کا رداس 5 سم اور اونچائی 12 سم ہے۔ ایک دوسرے واٹر ٹینک کا رداس	04

Second Annual 2025 | Section B Q2(viii) | 4 marks

(viii)	Two similar triangles have areas 36 cm^2 and 64 cm^2. Find ratio of the corresponding sides of the triangles if one side of the smaller triangle is 6 cm. دو مشابہ مثلثوں کے رقبے 36 cm^2 اور 64 cm^2 ہیں اگر چھوٹی مثلث کا ایک ضلع	04

(viii)	The ratio of areas of the bases of two similar cylinders is $9:4$. The area of base of the smaller cylinder is $240\,cm^2$. Calculate the radius, diameter and area of the base of large cylinder.	**04**	**OR**

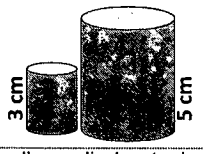
First Annual 2026 | Section B Q2(ii) OR | 4 marks

	04	OR	In the figure, $\overline{BC} \parallel \overline{DE}$. find: **a.** Ratio $\frac{DE}{BC}$ **b.** Ratio $\frac{\text{Area of } \Delta ADE}{\text{Area of } \Delta ABC}$ **c.** Find the area of ΔADE if area of ΔABC is $256cm^2$. **d.** Area of trapezium $DBCE$. 	1x4

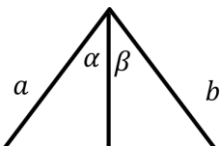
First Annual 2026 | Section A Q8 | 1 mark

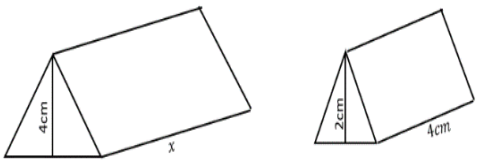
If two triangles are equal, then their corresponding sides are:	Equal	Unequal	Unproportional	Perpendicular

First Annual 2026 | Section B Q2(viii) | 4 marks

In the figure two geometrically similar cylinders are shown. Find:		
a. The ratio of volume of smaller cylinder to larger cylinder. **b.** Curved surface area of smaller cylinder if that of larger one is $250cm^2$. **c.** Volume of larger cylinder if volume of smaller one is $162cm^3$.		**2+1 +1**

FBISE model paper | Section A Q1(viii) | 1 mark

iii.	then find number of elements in $A \times B$.	5	6	8	9
iv.	What is the least common multiple of $7x - 6xy$ and $5xy^3 - 3x^2$?	$(7-6y) \times (5x^3 - 3x)$	$(7x - 6xy) \times (5y^3x - 3x^2)$	$x(7-6y)$	$x(7-6y$ $(5y^3 - 3$
v.	Solution of inequality $-2x - \frac{1}{2} \leq \frac{3}{2}$ is:	$x > -1$	$x < -1$	$x \geq -1$	$x \leq -$
vi.	What is the radian measure of $15^o50'$?	$\frac{19\pi}{216}$	$\frac{19\pi}{36}$	$\frac{19\pi}{180}$	$\frac{216\pi}{19}$
vii.	If a navigator gives bearing 0°, in which direction should he travel?	North	South	East	West
viii.	In the figure, if $\alpha = \beta$ then what is the value of b? 	$\frac{cd}{a}$	$\frac{c}{ad}$	$\frac{ad}{c}$	$\frac{ac}{d}$

viii.	In the adjacent similar figures,  find the value of x and the ratio of volumes v_1 and v_2.	4

OR	In $\triangle PQR$, a line through points S on PQ meets PR at T such that $PS:SQ = PT:TR$. Prove that $ST \parallel QR$. $\triangle PQR$ میں ایک لائن نقطہ S ضلع PQ پر اور نقطہ T ضلع PR میں سے اس طرح گزرے کہ $PS:SQ = PT:TR$ تو ثابت کریں کہ $ST \parallel QR$	04

APOLLO

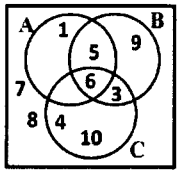
Geometrical Properties of regular Polygons, Triangles and Parallelograms

Domain B: Geometry

$U=\{1,2,3,4,5,6,7,8,9,10\}$

$A=\{1,2,5,6\},\ B=\{3,5,6,9\}$

$C=\{3,4,6,10\}$



The Venn diagram shows universal set U and sets A, B and C. Find elements of the following sets using Venn diagram.

درج وین ڈائیگرام میں یونیورسل سیٹ **U** اور سیٹس **A,B** اور **C** دکھائے گئے ہیں۔ بذریعہ وین ڈائیگرام درج شدہ کے ارکان معلوم کریں:

a	A^c, B^c, C^c	**c**	$B^c \cap C^c$
b	$A \cup B,\ (A \cup B)^c$	**d**	$B \cap C, (B \cap C)^c$

08

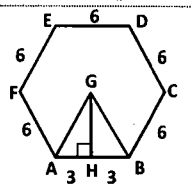
OR

a Slopes of sides AB, BC and AC — تینوں اطراف کی سلوپ

b Interior angles $\angle A, \angle B$ and $\angle C$ — اندرونی زاویے

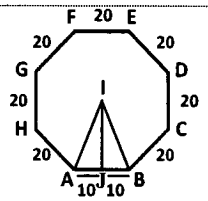
For the given regular hexagonal roof ABCDEF of side measure 6m, find:

دی گئی متناسب مسدس **ABCDEF** کی ہر سائیڈ 6 سم ہے۔ درج شدہ معلوم کریں:



a	Angles $\angle AGB$ and $\angle AGH$	زاویے
b	Lengths $\overline{AH}$ and $\overline{GH}$	لمبائیاں $\overline{AH}$ اور $\overline{GH}$
c	The area of ΔAGB	مثلث ΔAGB کا رقبہ
d	Area of the hexagonal roof	مسدس کا رقبہ

08

a	Slopes of sides **PQ, QR** and **PR**	سیوں اضلاع کی سلوپ	
b	Interior angles $\angle P, \angle Q$ and $\angle R$	اندرونی زاویے	
A regular octagonal tile ABCDEFGH used in tiling a floor, with side length of 20cm, find: دی گئی مناسب ہشت پہلو **ABCDEFGH** کی ہر سائیڈ **20** سم ہے۔ درج شدہ معلوم کریں:			08
a	The angles $\angle AIB$ and $\angle AIJ$	زاویے	
b	The lengths of AI and IJ	لمبائیاں AI اور IJ	
c	Area of ΔAIB	مثلث ΔAIB کا رقبہ	
d	Area of the octagonal tile	ہشت پہلو ٹائل کا رقبہ	

Second Annual 2025 | Section B Q2(v) OR | 4 marks

A regular hexagon has a side of 6 cm. Find its perimeter and each interior angle.

ایک باقاعدہ چھ ضلعی شکل (مسدس) کی ہر ضلع 6 سینٹی میٹر ہے۔ اس کا محیط (perimeter)

First Annual 2026 | Section B Q2(v) OR | 4 marks

OR	An exterior angle of a regular polygon is $12°$. What is the sum of all the interior angles? If length of its one side is 1 m then find its perimeter.
	Find equation of line passing through point of

First Annual 2026 | Section A Q11 | 1 mark

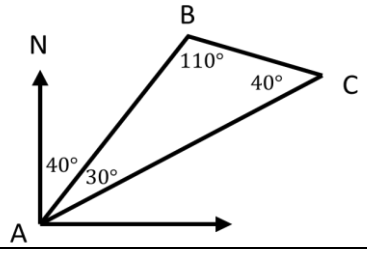
Each interior angle of a regular square-shaped garden is:	90°	60°	45°	30°

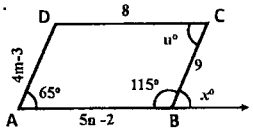
First Annual 2026 | Section B Q2(vi) | 4 marks

In a certain polygon, the sum of the measures of all the interior angles is equal to twice that of the exterior angles. What is the name of that polygon? If one side is 1 m then find this perimeter.	2+1 +1
A water fountain is to be placed at a point which is	

FBISE model paper | Section A Q1(xi) | 1 mark

xi.	Each of the internal angle of a regular hexagon is:	60^o	72^o	108^o	120^o

Q.2	Question	Marks	Question		Mark
i.	Simplify the expression $\left[(125)^{\frac{1}{3}} \times (25)^{\frac{1}{2}} + (64)^{\frac{2}{3}} \times 6 + (8)^{\frac{2}{3}}\right]^{\frac{-2}{3}}$	4	***OR***	If $X = \{1,3,9\}, Y = \{3,5,7\}$ and $Z = \{3,5,7,9,11\}$ then using Venn diagram, prove that $X \cup (Y \cap Z) = (X \cup Y) \cap (X \cup Z)$	4
ii.	The attached figure shows the position of three points A, B, and C. State the bearing of: B from A; A from B; B from C, and C from B.  	4	***OR***	For $A = \{1,2,3\}, B = \{3,4\}$ (a) List all the ordered pairs of the Cartesian Product $A \times B$, (b) List all the ordered pairs of a relation $R = \{(x,y) \mid x \epsilon A, y \epsilon B \wedge x < y\}$, (c) Find domain and range of the relation R.	4
iii.	Bani Gala had a population of 10,000 people in the year 2015. The population has been growing exponentially at a rate of 2.5% per year. Using the exponential growth formula $P(t) = P_0 e^{rt}$, apply laws of logarithm to determine the year when population reaches up to 25,000.	4	***OR***	Find equation of the family of lines passing through a point $(5,2)$ and through the intersection of lines $x + 2y - 10 = 0$ and $2x + y - 2 = 0$.	4
iv.	Solve the linear equation $\frac{1}{3}(x-2) + \frac{2-3x}{2} = \frac{x+5}{6}$	4	***OR***	Simplify $\frac{5}{5 + p - 18p^2} - \frac{2}{2 + 5p + 2p^2}$	4
v.	Prove that: $\frac{1}{1+cosx} + \frac{1}{1-cosx} = 2 + 2\cot^2 x$	4		In the given figure, find area of a regular hexagonal roof of a building shown below.	4

			04	(
(iv)	If $x=\frac{\sqrt{5}-\sqrt{3}}{\sqrt{5}+\sqrt{3}}$, then find	اگر $x=\frac{\sqrt{5}-\sqrt{3}}{\sqrt{5}+\sqrt{3}}$ تو معلوم کریں۔	04	(
	a). $x+\frac{1}{x}$	b). $x^2+\frac{1}{x^2}$		
(v)	Prove that the bisectors of the angles of a triangle are concurrent. ثابت کریں کہ کسی مثلث کے تینوں زاویوں کے ناصف ہم نقطہ ہوتے ہیں۔		04	(
(vi)	In the given figure $ABCD$ is a parallelogram, find the values of $m, n, u°$ and $x°$.  دی گئی شکل $ABCD$ ایک متوازی الاضلاع میں $m, n, u°$ اور $x°$ کی قیمتیں معلوم		04	(

Second Annual 2025 | Section B Q2(ix) | 4 marks

(ix)	In $\triangle XYZ$, the bisector of $\angle X$ meets YZ at W. If $XY = 10\,cm$ and $XZ = 6\,cm$, find the ratio $YW:WZ$. State the theorem used as well. مثلث XYZ میں $\angle X$ کا ناصف مقابل ضلع YZ کو نقطہ W پر قطع کرتا ہے اگر $XY = 10$ سم، $YZ = 6$ سم ہو تو تناسب $YW:WZ$ معلوم کریں اور استعمال کیا	04	OR

Second Annual 2025 | Section B Q2(vii) | 4 marks

(vii)	In a parallelogram if opposite sides and opposite angles are congruent then prove that diagonals bisect each other. ایک متوازی الاضلاع میں اگر مخالف اضلاع اور مخالف زاویے برابر ہوں تو ثابت کریں کہ	04	OR

OR	In $\triangle ABC, AC = 9\,cm$ and $AB = 7\,cm$. Which angle, $\angle B$ or $\angle C$, is larger? Give reason and state the theorem used. $\triangle ABC$ میں $AC = 9\,cm$ اور $AB = 7\,cm$ ہے، بتائیں کہ $\angle B$

Second Annual 2025 | Section C Q3 OR | 8 marks

OR	Prove that if two sides of a triangle are unequal in length, the longer side has an angle of greater measure opposite to it. اگر کسی مثلث کے دو اضلاع کی لمبائیاں برابر نہ ہوں تو زیادہ لمبے ضلع کے سامنے والے زاویہ	08

First Annual 2026 | Section A Q14 | 1 mark

13.	A perpendicular bisector cuts the line at: عمودی ناصف کسی خط کو _____ پر قطع کرتا ہے۔	At end point سرے پر	0° 	At one third ایک تہائی پر	90°
14.	In ΔABC the angle opposite largest side is: ΔABC میں لمبے ضلع کے سامنے والا زاویہ _____ ہوتا ہے۔	Largest بڑا	Smallest چھوٹا	0° 	Equal برابر

APOLLO

Loci

Domain B: Geometry

FBISE model paper | Section A Q23 | 0.75 marks

23	A goat is tied to a corner of a square field with a 7m rope. The locus of points it can graze is a:	Quarter circle	Semi-circle	Full circle	Square

FBISE model paper | Section A Q24 | 0.75 marks

24	A dog is tied to a fixed pole in a park with a 5 m rope. The set of all points the dog can reach is a:	Circle	Semi-circle	Square	Rectangle

FBISE model paper | Section B Q2 OR | 3 marks

OR	Two power stations are at $S(2,0)$ and $T(8,0)$. A substation is to be built equidistant from S and T. Find locus of possible positions for the substation and its equation.	3

A company wants to install a new cell phone tower so that it is equidistant from two existing towers located at **P(2,5)** and **Q(8,3)**. ***Find equation*** of the locus where the new tower should be placed. ایک کمپنی ایک نیا سیل فون ٹاور لگانا چاہتی ہے جو دو موجودہ ٹاورز سے جو P(2,5) اور Q(8,3) پر واقع ہیں، برابر فاصلے پر ہو۔ نئے ٹاور کے لیے مقام کے لوکس کی مساوات معلوم کریں۔	04

(vii)	A city is planning to install a new water distribution hub such that it is equidistant from two existing water stations located at **A(4,7)** and **B(10,1)**.Find the equation of the locus where the new hub should be placed. ایک شہر میں پانی کی تقسیم کا ایک نیا مرکز بنانے کا منصوبہ ہے۔ انتظامیہ چاہتی ہے کہ نیا منصوبہ کے پہلے سے نقاط **A(4,7)** اور **B(10,1)** پر لگے مراکز سے مساوی فاصلہ پر ہو۔ اس لوکس کی مساوات معلوم کریں جہاں نیا منصوبہ لگنا چاہیے۔	**04**	**OR**
(viii)	A cylindrical water tank has a radius of 5 cm and a height of 12 cm. A second cylindrical tank has a radius of 7.5 cm. Find the height of the second tank if both tanks have the same volume. سلنڈر شکل کے ایک واٹر ٹینک کا رداس 5 سم اور اونچائی 12 سم ہے۔ ایک دوسرے واٹر ٹینک کا رداس 7.5 سم ہے۔ دوسرے سلنڈر کی اونچائی معلوم کریں اگر دونوں سلنڈرز کے حجم (والیوم) برابر ہوں۔	**04**	**OR**

Second Annual 2025 | Section B Q2(vii) | 4 marks

(vii)	There are two trees 50 feet apart. It is planned to place a lamp post at 35 feet distance from each tree. Draw a sketch to show where the lamp-post can be placed in relation to the trees. How many locations for the lamp post are possible?	04

First Annual 2026 | Section B Q2(vii) | 4 marks

(vii)	A water fountain is to be placed at a point which is equidistant from two lamp posts located at $P(4,7)$ and $Q(10,1)$. Find possible positions of the fountain.	2+2	OR	Find the equation of straight line passing through $(-4,-4)$ and parallel to the line with slope -5.	04

First Annual 2026 | Section B Q2(vii) | 4 marks

(vii)	A company wants to install a new cell phone tower so that it is equidistant from two existing towers located at $P(2,5)$ and $Q(8,3)$. Find equation of the locus where the new tower should be placed.	04	OR	Find the equation of the line that crosses the line $y = 2x - 5$ at right angle at the point (3.1).	04

First Annual 2026 | Section A Q12 | 1 mark

The locus of points equidistant from two intersecting straight lines is formed by the:	Two parallel lines	Perpendicular bisectors	Circles	Angle bisectors

First Annual 2026 | Section B Q2(vii) | 4 marks

If one side is 1 m then find this perimeter.	
A water fountain is to be placed at a point which is equidistant from two lamp posts located at $P(3,7)$ and $Q(9,1)$. Find possible positions of the fountain.	3+1

FBISE model paper | Section A Q1(xii) | 1 mark

xii.	Locus of points equidistant from $P(5,4)$ and $Q(5,-6)$ is:	$x = 0$	$x = 5$	$y = -1$	$y = 1$

FBISE model paper | Section B Q2(vii) | 4 marks

vii.	A triangular garden XYZ shows corners $X(-4,-4)$, $Y(12,0)$ and $Z(4,8)$ geometrically. Find locus of the corners equidistant from XZ and YZ.	4

Second Annual 2025 | Section B Q2(vii) OR | 4 marks

opposite sides and opposite then prove that diagonals ایک متوازی الاضلاع میں اگر مخالف اضلاع اور مخا اس کے وتر ایک دوسرے کی تنصیف کرتے ہیں۔	04	OR	A point P inside $\angle QRS$ is equidistant from RQ and RS. Prove that P lies on the bisector of $\angle QRS$. اگر ایک نقطہ P $\angle QRS$ کے اندر RQ اور RS سے مساوی فاصلے پر ہو تو ثابت کریں کہ وہ زاویہ QRS کی دو حصوں میں تقسیم کرنے والی لائن پر ہے۔	04

APOLLO

Trigonometry

Domain B: Geometry

FBISE model paper | Section A Q25 | 0.75 marks

25	135^{o} in circular system (radians) is:	$\frac{3\pi}{4}$	$\frac{4\pi}{3}$	$\frac{3\pi}{2}$	$\frac{5\pi}{4}$

FBISE model paper | Section A Q26 | 0.75 marks

26	A person stands $20\ m$ from a building. The angle of elevation to the top is 45°. What is the height of the building?	11.5 m	14.1 m	20 m	34.6 m

FBISE model paper | Section C Q9 OR | 6 marks

From the top of a 100 m high building, the angle of depression to the bottom of a second building is 30˚and the angle of elevation to the top of the second building is 20°. Calculate the height of the second building.	6

A 10-meter-long ladder is leaning against a vertical wall. The foot of ladder is 6 m away from the base of wall. Find:	ایک 10 میٹر طویل سیڑھی ایک دیوار کے ساتھ لگائی گئی ہے۔ سیڑھی کا نچلا سرا دیوار سے 6 میٹر کے فاصلے پر ہے۔ معلوم کریں:	04
a The angle that ladder makes with the ground.	سیڑھی کا زمین پر زاویہ	
b The height at which ladder touches the wall.	سیڑھی کی دیوار پر بلندی	

(vi)	A person is standing 20 meters away from a tree. The angle of elevation from the person's eye level to the top of the tree is 45° ایک آدمی درخت سے 20 میٹر کے فاصلے پر کھڑا ہے۔ اس کی آنکھ کا زاویہ درخت کی چوٹی کے ساتھ 45° کا ہو تو معلوم کریں: **a** Find height of the tree. درخت کی اونچائی **b** If the person moves 10 meters closer to the tree, find the new elevation angle.	04	OR	A fa face **a** **b**

Q.5	A person is standing on the ground and sees the top of a tower at an angle of elevation of 30^o. The distance between the person and the base of the tower is 50 meters. **(a)** Find the height of the tower (up to two decimal places). **(b)** If a bird is flying directly above the top of the tower and is seen at an angle of elevation of 60^o, find the vertical distance of the bird from the ground.	**08**

First Annual 2026 | Section B Q2(v) | 4 marks

(v)	Solve the right-angled triangle $\Delta ABC,\ m\angle C = 90°,\ a = 4cm,\ c = 4\sqrt{2}cm$	04	OR

First Annual 2026 | Section C Q2(v) | 4 marks

درج قائمۃ الزاویہ مثلث لو ٹ کریں: $\Delta ABC,\ m\angle C = 90°,\ a = 4cm,\ c = 4\sqrt{2}cm$	(v)

	complete square.			
Q.4	From the eye level of a 6 feet tall person standing on the ground, the angle of elevation of the top of a tower is $30°$. **a.** What type of triangle is formed in this situation? **b.** Which trigonometric ratio would be used to find the height of the tower? **c.** Find height of tower from its base.	**1+1 +6**	**OR**	Cor **a.** **b.** **c.** **d.**
Q.5	Draw a triangle ABC when			Con

Q.4	From the top of a tower of height 120 m, angles of depression of two boats on same side of tower at water level are $60°$ and $45°$. Find distance between the boats.

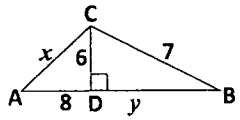
First Annual 2026 | Section C Q4 | 8 marks

	b. What should be subtracted from it?	
4	Two men on opposite sides of a tree are in line with it. They observe that angles of elevation of top of tree are $30°$ and $60°$. The height of tree is 15 m, find distance between the men.	08

FBISE model paper | Section A Q1(vi) | 1 mark

vi.	What is the radian measure of $15^o 50'$?	$\frac{19\pi}{216}$	$\frac{19\pi}{36}$	$\frac{19\pi}{180}$	$\frac{216\pi}{19}$

Q4	The height H of the tide at a coastal location varies over a day, modeled by $H = H_o + A \cdot sin\left(\frac{2\pi t}{T}\right)$, with H_o: the average tide height, A: the amplitude of tidal variation, t: the time in hours, and T: the period of tidal cycle in hours. If $H_o = 2m, A = 1m, T = 24hours$ use trigonometry to find the tide's height at $t = 0, 6, 18$ hours.	8

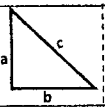
(viii)	Apply Pythagoras theorem to find the values of x and y as shown in the figure. مسئلہ فیثاغورث استعمال کرتے ہوئے x اور y کی قیمتیں معلوم کریں۔		04	OR
	In $\triangle XYZ$ the bisector of $\angle X$ meets YZ at W. If			

Second Annual 2025 | Section C Q4 OR | 8 marks

$\frac{x^2-9x}{x+4}$ مختصر کریں۔	08	OR	Prove that in a right-angled triangle, the square of the length of hypotenuse is equal to the sum of the squares of the lengths of the other two sides. ایک قائمۃ الزاویہ مثلث کے وتر کی لمبائی کا مربع دوسرے دونوں اضلاع کی لمبائیوں کے مربعوں کے مجموعہ کے برابر ہوتا ہے۔ ثابت کریں۔	08

First Annual 2026 | Section A Q15 | 1 mark

15. Pythagoras theorem is when sides of triangle are a, b and c:
مثلث کے اضلاع a, b اور c ہیں تو مسئلہ فیثا غورث کے مطابق:



c=a+b | $c^2=a^2+b^2$ | $c^2=a-b$ | $c=a^2+b^2$

—1SA-I 26008 (Old) —

APOLLO

Trigonometric Identities

Domain B: Geometry

FBISE model paper | Section A Q27 | 0.75 marks

27	The value of $\cos^2 100° + \sin^2 100°$ is:	0	0.81	1	1.15

FBISE model paper | Section B Q3 OR | 3 marks

OR	Prove that $\sqrt{\frac{1-cos\theta}{1+cos\theta}} = \frac{sin\theta}{1+cos\theta}$	3

FBISE model paper | Section B Q6 OR | 3 marks

OR	A ladder reaches a height of 4 m on a wall. The foot of the ladder is 3 m from the wall. If θ is the angle the ladder makes with the ground, (a) Find the values of $\sin\theta$ and $\cos\theta$. (b) Verify that $\sin^2\theta + \cos^2\theta = 1$	3

First Annual 2025 | Section B Q2(v) | 4 marks

Prove that: $\frac{sin\theta}{(1-cos\theta)} = cosec\theta + cot\theta$	ثابت کریں کہ:	04

First Annual 2025 | Section B Q2(v) | 4 marks

(v)	Prove that: $\frac{sin\theta}{1-cos\theta} - \frac{1+cos\theta}{sin\theta} = 0$	ثابت کریں کہ:	04

(v)	Show that $sin^2\theta + cos^2\theta = 1$ by Pythagoras Theorem. $sin^2\theta + cos^2\theta = 1$ مسئلہ فیثاغورث کی مدد سے معلوم کریں کہ	04	OR	A regular hexagon has a side of 6 cm. Find its perimeter and each interior angle. ایک باقاعدہ چھ ضلعی شکل (مسدس) کی ہر ضلع 6 سینٹی میٹر ہے۔ اس کا محیط (perimeter)	04

OR	calculate: **a.** The probability of selecting a white ball. **b.** The probability of selecting a black ball **c.** The sum of all the probability	**04**
OR	An earthquake that occurred in Pakistan in 2005, measured 7.6 on the Richter scale. In 1978, an earthquake in China measured 8.2 on the Richter scale. How many times, the China's earthquake was stronger than the Pakistan's earthquake? (Use $M = \log\left(\frac{I}{I_o}\right)$)	**04**
OR	Find the equation of a line through the point $(1,3)$ and the point of intersection of lines $2x-3y+4=0$ and $4x+y-1=0$.	**04**
OR	Factorize the quadratic expression: $3x^2+16x-12$	**04**
OR	Verify that $\sin^2\theta+\cos^2\theta=1$	**04**

First Annual 2026 | Section B Q2(v) | 4 marks

(v)	Verify that: $\sqrt{\frac{1-\cos\theta}{1+\cos\theta}} = \frac{\sin\theta}{1+\cos\theta}$	2+2	OR	An exterior angle of a regular polygon is $12°$. What is the sum of all the interior angles? If length of its one side is 1 m then find its perimeter.	3+1

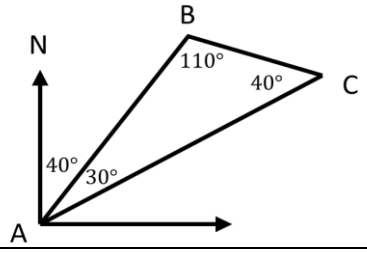
First Annual 2026 | Section A Q9 | 1 mark

$1+\tan^2\theta =$	$\sin^2\theta$	$\cos^2\theta$	$\sec^2\theta$	$\text{cosec}^2\theta$

First Annual 2026 | Section B Q2(v) | 4 marks

Show that: $1+\tan^2\theta = \sec^2\theta$	04

ix.	What is the value of $-3-3\tan^2\theta$ in a single trigonometric function?	$3cosec^2\theta$	$-3\sec^2\theta$	$3\sec^2\theta$	$-3cosec^2\theta$

Q.2	Question	Mark
i.	Simplify the expression $\left[(125)^{\frac{1}{3}} \times (25)^{\frac{1}{2}} + (64)^{\frac{2}{3}} \times 6 + (8)^{\frac{2}{3}}\right]^{\frac{-2}{3}}$	4
ii.	The attached figure shows the position of three points A, B, and C. State the bearing of: B from A; A from B; B from C, and C from B.  	4
iii.	Bani Gala had a population of 10,000 people in the year 2015. The population has been growing exponentially at a rate of 2.5% per year. Using the exponential growth formula $P(t) = P_0 e^{rt}$, apply laws of logarithm to determine the year when population reaches up to 25,000.	4
iv.	Solve the linear equation $\frac{1}{3}(x-2) + \frac{2-3x}{2} = \frac{x+5}{6}$	4
v.	Prove that: $\frac{1}{1+cosx} + \frac{1}{1-cosx} = 2 + 2\cot^2 x$	4

APOLLO

Bearing

Domain B: Geometry

FBISE model paper | Section A Q28 | 0.75 marks

28	A ship sails from port on a bearing of 225°. In which direction is it moving?	North-East	South-East	South-West	North-West

FBISE model paper | Section B Q7 OR | 3 marks

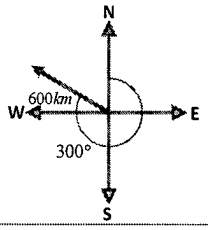
OR	A scout walks from camp C to a river R on a bearing of 240°. Draw a rough sketch showing the direction. (a) State in which quadrant the bearing lies? (b) Find the acute angle from South.	3

First Annual 2025 | Section B Q2(ii) | 4 marks

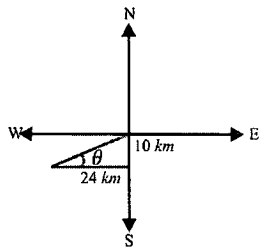
(ii)	Write each of the following in three- digit notations: درج شدہ بیئرنگ کو تھری ڈیجٹ نوٹیشن میں لکھیں: **a** South 55° West جنوب 55^{o} مغرب **b** North 15° East شمال 15^{o} مشرق **c** North 110° West شمال 110^{o} مغرب **d** West 35° South مغرب 35^{o} جنوب	04	OR	For **a** **b**

Second Annual 2025 | Section B Q2(ii) | 4 marks

(ii)	A person travels 100 km due East, then 50 km due South. Find the direction and bearing of his final position. ایک شخص 100 کلومیٹر مشرق کی طرف، پھر 50 کلومیٹر جنوب کی طرف سفر کرتا ہے۔	04

(ii)	A plane travels 600 km on a bearing of $300°$. How far west did the plane travel?		04	OR	An earthquake that occurred in Pakistan in 2005, measured 7.6 on the Richter scale. In 1978, an earthquake in China measured 8.2 on the Richter scale. How many times, the China's earthquake was stronger than the Pakistan's earthquake? (Use $M = \log\left(\frac{I}{I_o}\right)$)	04
(iii)	If $A = \{1, 3\}$ and $B = \{2, 4\}$:				Find the equation of a line through the point (1, 3) and	

First Annual 2026 | Section B Q2(ii) | 4 marks

A cyclist travels 10 km due south and then 24 km due west. What simple bearing should the cyclist take to return directly?		**04**

First Annual 2026 | Section A Q7 | 1 mark

3				
A cyclist travels from P to Q on a bearing of 45°. This means the cyclist moves.	South-East	North-East	South-West	North-West

First Annual 2026 | Section B Q2(ii) | 4 marks

Two boats A and B are 5 km apart and the bearing of boat B from boat A is $250°$. Draw the diagram showing relative positions of both boats, then find the bearing of boat A from boat B.	04

FBISE model paper | Section A Q1(vii) | 1 mark

vii.	If a navigator gives bearing 0°, in which direction should he travel?	North	South	East	West

Q.2	Question	Mark
i.	Simplify the expression $\left[(125)^{\frac{1}{3}} \times (25)^{\frac{1}{2}} + (64)^{\frac{2}{3}} \times 6 + (8)^{\frac{2}{3}}\right]^{\frac{-2}{3}}$	4
ii.	The attached figure shows the position of three points A, B, and C. State the bearing of: B from A; A from B; B from C, and C from B. B	4

APOLLO

Construction of Triangle

Domain B: Geometry

FBISE model paper | Section A Q29 | 0.75 marks

29	In a triangle, the three medians meet at a point called the:	Circumcenter	Orthocenter	Centroid	Incentre

FBISE model paper | Section C Q10 | 6 marks

10	Draw a triangle ABC with $AB = 4$ cm, $BC = 5$ cm, and $CA = 6$ cm. Construct all three medians of the triangle. Verify that they are concurrent. Name the point of concurrency, and state whether it lies inside, on, or outside the triangle.	6

Q.5

Construct a triangle ΔABC of sides measure

$$m\overline{AB} = m\overline{BC} = m\overline{AC} = 5cm,$$

$m\overline{AB} = m\overline{BC} = m\overline{AC} = 5cm$, ایک مثلث ΔABC بنائیں جس میں

a Construct perpendicular bisectors of the triangle. مثلث کے عمودی ناصف

b Write down the construction steps. کنسٹرکشن سٹیپس لکھیے

08

OR

The given table shows distribution of marks obtained by 50 students in a mathematics test:

Calculate the median marks.

C.I	01 – 10	11 – 20	21 – 30	31 – 40	41 – 50
f	5	10	15	12	8

درج جدول میں ریاضی کے ٹیسٹ میں 50 طلبہ کے حاصل کردہ نمبروں کی تفصیل ہے۔ اس مواد کا وسطانیہ معلوم کریں۔

08

1SA-I-25008-(B)

First Annual 2025 | Section C Q5 | 8 marks

Construct a triangle ΔABC of sides measure $m\overline{AB} = m\overline{BC} = m\overline{AC} = 6cm$ $m\overline{AB} = m\overline{BC} = m\overline{AC} = 6cm$ ایک مثلث ΔABC بنائیں جس میں		08
a	Construct perpendicular bisectors of the triangle. مثلث کے عمودی ناصف	
b	Write down the construction steps. کنسٹرکشن سٹیپس لکھیے	

1SA-I-25008-(I

Q.4	Draw a triangle ABC in which $AB = 5.3\ cm$, $BC = 6.5\ cm$, and $AC = 8\ cm$. Construct all three medians and show that they meet at one point. Label the centroid. ایک مثلث ABC بنائیں جس میں $AB = 5.3\ cm, BC = 6.5\ cm$ اور $AC = 8\ cm$ ہو۔ تینوں وسطانیے (medians) بنائیں اور ثابت کریں کہ وہ ایک ہی نقطہ پر ملتے ہیں۔ centroid کو لیبل کریں۔	**08**