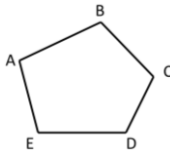
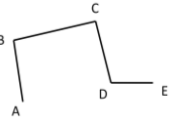
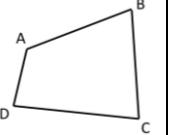
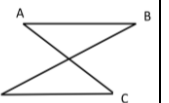
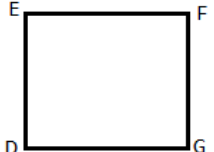
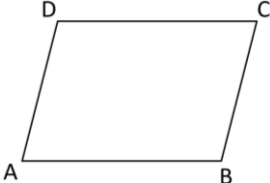
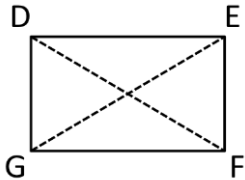
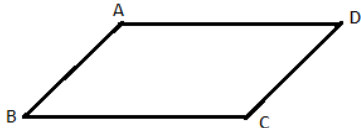
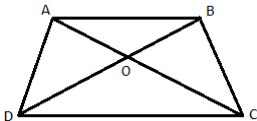
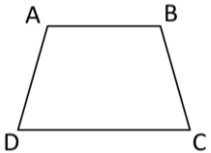
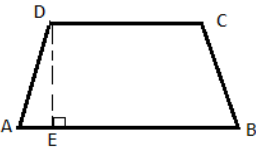
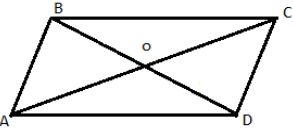
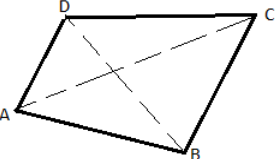
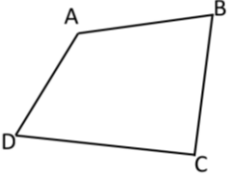
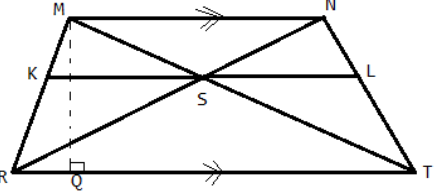
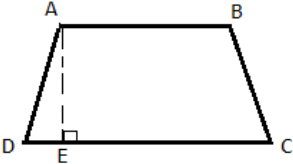
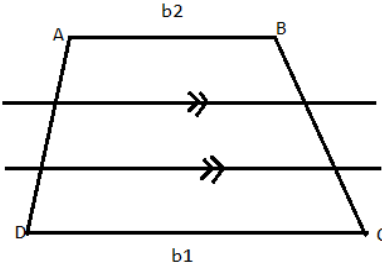
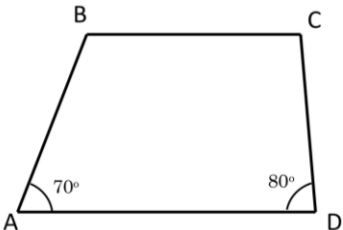
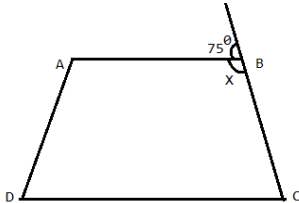
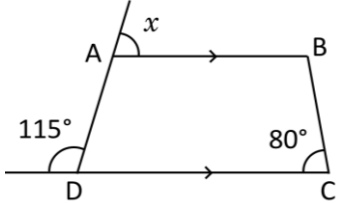


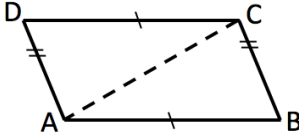
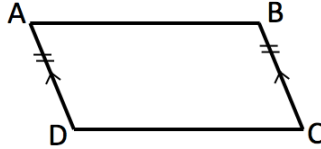
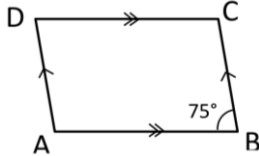
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
1	37	K	Which one is a regular polygon?		Parallelogram	Rectangle	Square	Trapezium	C
2	37	K	Which figure represents a quadrilateral?						C
3	37	K	Which of the following is always true?		A quadrilateral is a parallelogram	A trapezium is a quadrilateral	A rhombus is a square	A rectangle is a rhombus	B
4	37	K	Given a quadrilateral DEFG, name a side that is not adjacent with FG.		ED	EF	DG	None	A
5	37	K	A quadrilateral is a plane figure which has _____.		3 sides	3 angles	4 sides	3 vertices	C
6	37	K	If we connect four line segments end to end without crossing each other, what type of geometric figure will we get?		Triangle	Quadrilateral	Pentagon	Hexagon	B
7	37	K	Which one is FALSE about the figure shown below?		It has four vertices	It has four interior angles	It has four possible diagonals	It has four sides	C
8	37	K	Which of the following is a general name for the others?		Parallelogram	Polygon	Quadrilateral	Rectangle	B
9	37	K	A quadrilateral is _____.		a four sided geometric figure bounded by curves	a four sided geometric figure bounded by line segments	a three sided geometric figure bounded by curves	a three sided geometric figure bounded by line segments	B

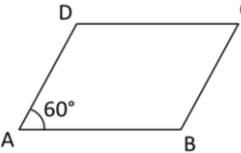
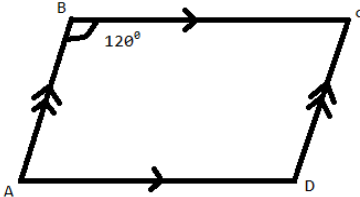
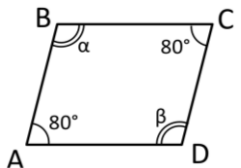
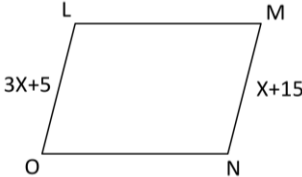
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
10	37	K	For a quadrilateral DEFG shown below, which one is the diagonal?		EF	FG	DG	EG	D
11	37	K	Which one is true about a quadrilateral?		A quadrilateral has only 3 vertices	It has four diagonals	Its angles are formed by intersection points of adjacent sides	It is a four-sided figure bounded by curves	C
12	38	K	Which of the following is NOT TRUE about a quadrilateral ABCD below?		AB and AD are sides of a quadrilateral	Points A, B, C, D are vertices of a quadrilateral	AB and CD are adjacent sides	AD and BC are opposite sides	C
13	38	K	Which of the following is true about any quadrilateral?		It has four sides of the same length	It has four sides and opposite angles of the same degree measure	It is a four sided figure made of line segments	It is a four sided figure made of curves	C
14	38	K	Which of the following is true about quadrilateral ABCD?		Points A,B,C,D and O are vertices of the figure	AC and BD are called diagonals of the figure	The two diagonals bisect at point O	AC and BD could never have equal lengths	B
15	38	K	In the figure below, A, B, C, D are called _____.		Interior angles	Exterior angles	Vertices	Sides	C

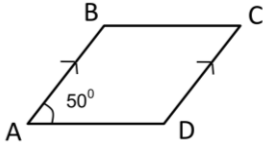
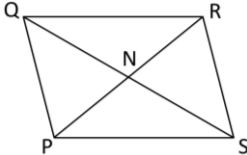
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
16	38	K	Which one is true about the trapezium shown below?		DC and BC are its base sides	DC and AB are its legs	AD and BC are its heights	DC and AB are its base sides	D
17	38	K	Based on the quadrilateral ABCD given below, which of the following is true?		AD and CD are opposite sides	The points A, O, C, and D are vertices of the quadrilateral	AO and BD are diagonals of the quadrilateral	AB and BC are adjacent sides of the quadrilateral	D
18	38	K	For the quadrilateral shown below which one is true?		AB and BC are non-adjacent sides	AC is side of a quadrilateral	AD and CD are opposite sides	DB and CA are diagonals	D
19	38	K	If ABCD is a quadrilateral, which of the following is NOT true?		AB and CD are opposite sides	Line segment AB is a diagonal	Point B is a vertex	$\angle ABC$ is an interior angle	B
20	39	K	A quadrilateral with only one pair of opposite sides being parallel is _____.		Parallelogram	Rhombus	Square	Trapezium	D
21	39	K	The figure MNTR shown below is a trapezium with its parts given as indicated. Which one of the following is true about this trapezium?		KL is the attitude of the trapezium	RM can be parallel to NT	RN is always equal to MT	MQ is the height of the trapezium	D

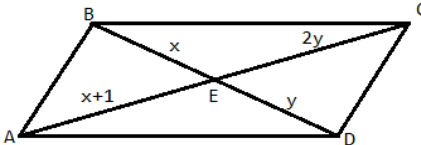
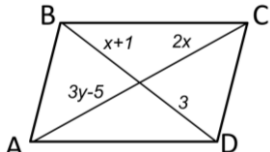
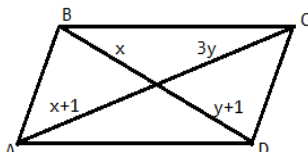
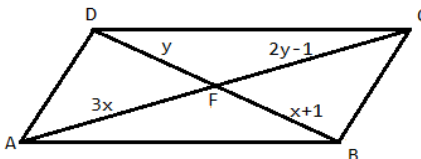
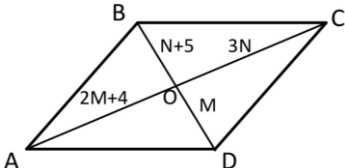
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
22	39	K	Which one of the following statements is true?		The legs of the trapezium are its parallel sides	The bases of the trapezium are its non-parallel sides	The median of a trapezium is the segment joining the midpoints of its legs	The base angles of a trapezium are the angles at the ends of one of its legs	C
23	39	K	Which of the following is true about a trapezium?		The four sides could never be equal	It has a pair of parallel sides	All four angles always have the same degree measure	It has at least one pair of adjacent sides of equal length	B
24	39	K	The figure below shows a trapezium ABCD. Which one of the following is NOT true based on the figure?		AB and DC are bases	DA and CB are legs	AE is height	AC and AE are diagonals	D
25	40	K	To construct a trapezium one must have at least _____.		a pair of two right angles	a pair of two line segments of equal size	a pair of two adjacent angles of equal degree measures	a pair of two line segments on two parallel opposite lines	D
26	40	K	How many trapeziums can be formed if one pair of parallel lines pass through between the bases of a trapezium as indicated in the figure?		3	4	5	6	D
27	41	K	Consider the given figure below. What should be the value of $m(\angle DCB)$ for ABCD to be a trapezium?		70 degrees	80 degrees	100 degrees	110 degrees	C

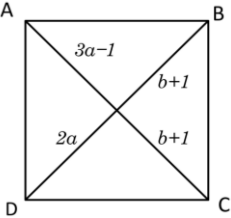
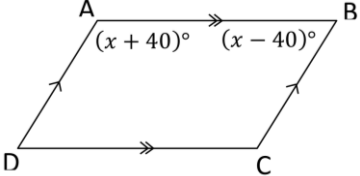
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
28	41	K	Which one is true about a trapezium?		The base sides are parallel	The base sides are perpendicular	The base angles are right angles	The height is equal to the shortest base side	A
29	41	K	A trapezium could be defined as a quadrilateral which has?		One pair of adjacent sides that are perpendicular	Two angles with equal measures	A pair of opposite sides which are parallel	Two pairs of angles with equal measures	C
30	41	K	What type of quadrilateral has exactly one pair of parallel sides?		Trapezium	Square	Rhombus	Rectangle	A
31	41	K	Which of the following is a property of a trapezium?		The distance between the parallel sides is known as the diagonal of the trapezium	The parallel sides are known as the bases of the trapezium	It has exactly two pairs of opposite sides parallel	It has exactly one pair of opposite angles having equal degree measure	B
32	41	K	In the diagram given below, what is the value of x in degrees?		120°	105°	90°	80°	B
33	41	K	In the figure below, if $AB \parallel DC$, find the measure of x .		$x=65^\circ$	$x=75^\circ$	$x=80^\circ$	$x=115^\circ$	A
34	41	K	Which property is true for all trapeziums?		Only two opposite sides are parallel	Consecutive angles are complementary	The base angles are congruent	All angles are equal	A

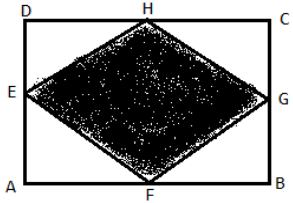
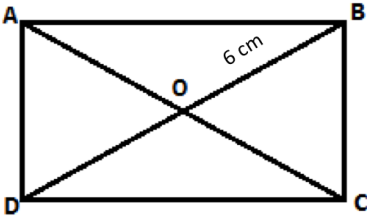
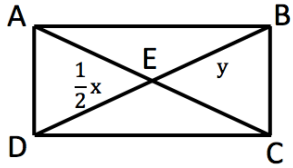
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
35	42	K	Which one of the following is <u>true</u> about a parallelogram?		All sides of a parallelogram are equal in length	Consecutive angles of a parallelogram are equal	The diagonals of a parallelogram are perpendicular to each other	Opposite angles of a parallelogram are congruent	D
36	42	K	The idea of a parallelogram comes from _____.		two pairs of opposite parallel lines	four angles with equal degree measures	four right angles	four congruent line segments	A
37	42	K	Given the figure below, which of the following is TRUE about it?		If $\angle ADC$ is acute angle then $\angle DAB$ is also acute angle.	$\triangle ADC$ is congruent to $\triangle CBA$.	If $m(\angle ADC) = 90^\circ$, then $m(\angle CBA) < 90^\circ$.	$DA \parallel CB$ but DC is not parallel to AB .	B
38	42	K	Consider the quadrilateral shown below. Which one of the following statements is NOT TRUE?		It is a rhombus	It is a parallelogram	$AB = DC$	$\angle A$ and $\angle B$ are supplementary	A
39	42	K	Which one of the following is NOT TRUE about parallelogram?		Opposite sides are congruent	Opposite sides are parallel	Consecutive angles are congruent	The diagonals bisect each other	C
40	42	K	Which of the following is true about a parallelogram?		A four sided figure having opposite sides of different lengths and a pair of right angles	All of its sides have different lengths but a pair of opposite sides are parallel	All of its angles have different measures but it has one pair of parallel sides	Its opposite sides are parallel and opposite angles have equal measures	D
41	42	K	In the figure below ABCD is a parallelogram and $m(\angle B)$ is 75° , then the degree measure of $m(\angle A)$ is _____.		75°	90°	105°	180°	C

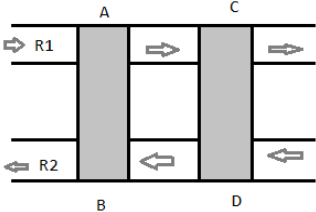
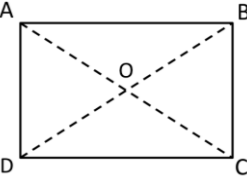
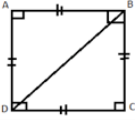
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
42	42	K	ABCD is a parallelogram with $m(\angle DAB)=60^\circ$. What is the degree measure of $\angle ABC$?		60°	90°	120°	180°	C
43	42	K	Find the measure of $\angle A$ in the given parallelogram below.		60 degrees	120 degrees	180 degrees	240 degrees	A
44	42	K	If the measure of one of the angles of a parallelogram is 70° , what is the measure of the angle which is adjacent to it?		70°	110°	130°	145°	B
45	42	K	ABCD is a parallelogram. The value of $(\alpha + \beta)$ is _____.		100°	160°	200°	280°	C
46	42	A	If an engineer wants to construct a house and also wanted to erect a column right at the center of a rectangular based floor, what concept does he apply?		The concept of a right angle	Properties of diagonals of a parallelogram	The concept of angles of a trapezium	The concept of diagonals of a trapezium	B
47	42	A	LMNO is a parallelogram. If $NM=(x+15)$ cm and $OL=(3x+5)$ cm, find the respective values of x and NM .		7cm and 20cm	5cm and 20cm	7cm and 22cm	5cm and 22cm	B

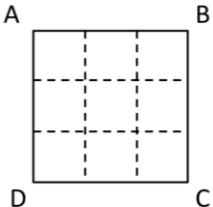
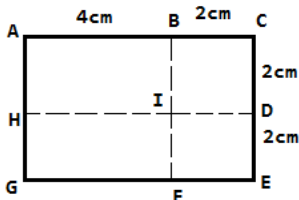
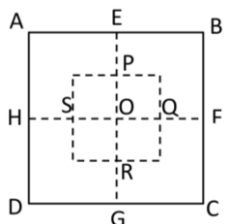
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
48	43	K	To draw a parallelogram we need:		two line segments of equal size and any two angles	two line segments of any size and two supplementary adjacent angles	four line segments of equal size	four angles of the same measure	A
49	44	K	The figure below shows a parallelogram ABCD with $m(\angle DAB)=50^\circ$. Which one of the following is true?		$m(\angle ADC)+m(\angle ABC)=180^\circ$	$m(\angle ADC)+m(\angle ABC)=2m(\angle DCB)$	$m(\angle DAB)+m(\angle ADC)=180^\circ$	$m(\angle CBA)+m(\angle CDA)=100^\circ$	C
50	44	K	Which one is FALSE about parallelogram?		Its opposite sides are congruent	Its opposite angles are congruent	Its diagonals bisect each other	Its adjacent angles are complementary	D
51	44	K	In the figure below PQRS is a parallelogram whose diagonals intersect at N. Which one of the following is NOT correct about this parallelogram?		$QN=SN$	$\angle QPR \cong \angle SRP$	$PR=QS$	$NR=1/2 PR$	C
52	44	K	Which statement is true about all parallelograms?		The diagonals are congruent	The adjacent sides are perpendicular	The opposite angles are congruent	The diagonals are perpendicular to each other	C
53	44	K	Which one of the following is exactly true about a parallelogram?		Adjacent sides are congruent	Opposite angles are right angles	Opposite sides are congruent	Adjacent angles are acute	C
54	44	K	Which one is NOT the property of a parallelogram?		The diagonals bisect each other	It has two pairs of parallel sides	Opposite angles are supplementary	The diagonal bisects the parallelogram	C
55	44	K	Which of the following is true about a parallelogram?		Adjacent sides are congruent	Cousecutive angles are complementary	Opposite angles are congruent	The diagonals are perpendicular to each other	C

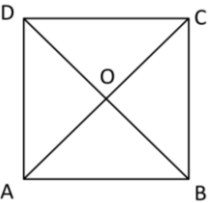
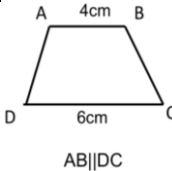
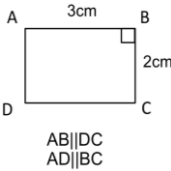
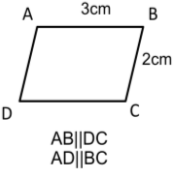
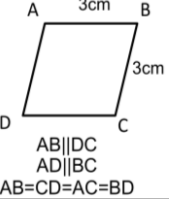
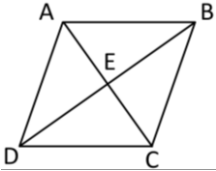
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
56	44	A	The figure below is a parallelogram ABCD with $BE=x$, $ED=y$, $AE=x+1$ and $EC=2y$. What is the value of BD?		1 unit	2 units	4 units	5 units	B
57	44	A	In the parallelogram ABCD below, what is the value of x and y, respectively?		2 and 3	4 and 5	3 and 2	1 and 2	A
58	44	A	In the figure below is a parallelogram ABCD. What is the value of x and y?		$x=2$ and $y=1$	$x=3$ and $y=2$	$x=2$ and $y=2$	$x=1$ and $y=2$	A
59	44	A	If ABCD is a parallelogram with $AF=3x$, $CF=2y-1$, $DF=y$ and $FB= x+1$, what is the length of DB?		1	3	4	7	C
60	44	A	ABCD is a parallelogram with lengths $AO = (2M+4)$, $OC=3N$, $BO = (N+5)$, $OD = M$. Find the length of the longest diagonal.		38	42	57	84	D

S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
61	44	A	In the figure below, find the value of a and b in the parallelogram.		$a=2$ and $b=2$	$a=1$ and $b=1$	$a=1$ and $b=2$	$a=2$ and $b=1$	B
62	44	A	In the figure below ABCD is a parallelogram. What is the value of x?		40	50	80	90	D
63	45	K	To construct a rectangle, we need _____.		two line segments put side to side making adjacent right angles	any two line segments with equal lengths and four adjacent right angles	four angles whose sum of degree measures is 360^0	any four line segments	A
64	46	K	Which of the following quadrilaterals is necessarily a rectangle?		Polygon	Rhombus	Square	Trapezium	C
65	46	K	Which of the following is NOT TRUE about rectangle?		All angles are congruent	Diagonals are equal in length	Diagonals bisect each other	The consecutive angles are not equal	D
66	46	K	A parallelogram with congruent adjacent angles is _____.		a triangle	a rectangle	a rhombus	an isosceles trapezium	B
67	46	K	Which of the following is true about properties of a rectangle?		A rectangle has all properties of a trapezium	All angles of a rectangle are obtuse	The diagonals of a rectangle may differ in size	Adjacent angles of a rectangle are equal in degree	D
68	46	K	Which one is NOT the property of a rectangle?		Opposite sides are parallel	Diagonals are equal in length	All angles are right angles	The diagonals bisect the angles at the vertices	D

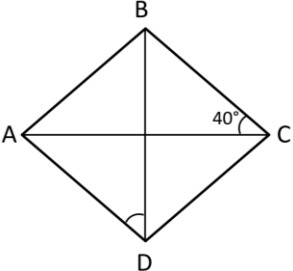
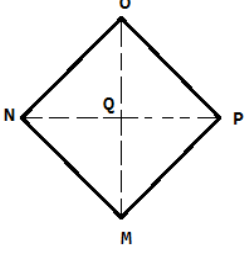
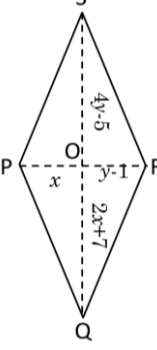
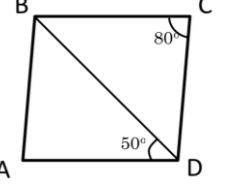
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
69	46	K	Among the following quadrilaterals, one can be a rectangle. Which one?		Parallelogram	Rhombus	Square	Trapezium	C
70	46	K	A rectangle has a perimeter of 80cm. What is the width of the rectangle if its length is 24 cm?		12cm	16cm	18cm	40cm	B
71	46	A	ABCD is a rectangle and E, F, G and H are the midpoints of the sides of the rectangle. Find the ratio of the shaded part to the unshaded part.		3:4	2:3	1:2	1:1	D
72	46	A	If in the figure below ABCD is a rectangle and AC and BD meet at point O and BO=6cm, then what is the length of AC?		12cm	9cm	6cm	3cm	A
73	46	A	If ABCD given below is a rectangle and if AC=12cm then what is the values of x and y, respectively?		4 and 8	6 and 12	8 and 4	12 and 6	D
74	46	A	A football field could be constructed using the concept of _____.		parallelogram	rectangle	rhombus	square	B
75	46	A	An engineer wants to construct a bridge having 7 meters depth from the water level, 15 meters above the water level and its length to be 30 meters. If the top of the bridge is perpendicular to the right and left columns, what concept of quadrilaterals does he use?		Trapezium	Square	Rectangle	Parallelogram	C

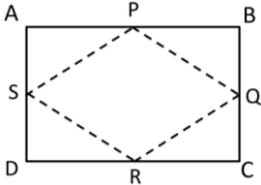
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
76	46	A	As the figure below shows, R1 and R2 are two parallel roads. If you want to construct two shorter bridges AB and CD, then you apply the concept of _____.		parallelogram	rectangle	rhombus	trapezium	B
77	46	A	ABCD is a rectangle. Lengths of diagonals $AC = (10x+6)$ and $BD = (7x+12)$. The length of AO is _____.		13	18	26	52	A
78	47	K	Which one of the following statements is true?		Rectangles are squares	Any rhombus is a square	Squares are parallelograms	A diagonal of a square can be congruent to its side	C
79	47	K	Which of the following is NOT TRUE about square?		Diagonals are equal	Opposite sides are parallel	All angles are right angle	Adjacent sides are not equal	D
80	47	K	Which one of the following is a distinct property of a square?		A square is a rectangle with equal degree measures of all the angles	A square is a rectangle with all of its sides having equal length	A square is a rectangle with opposite sides congruent	A square is a rectangle with opposite angles congruent	B
81	47	K	Which of the following is true?		Any parallelogram is a square	Any rhombus is a square	Any square is a rectangle	Any parallelogram is a rhombus	C
82	47	K	Which one of the following statements is true?		Every square is a rhombus	Every parallelogram is a rectangle	Every rhombus is a square	Every parallelogram is a rhombus	A
83	47	K	Figure ABCD is a square. What is the measure of $\angle BDC$?		90°	60°	45°	30°	C

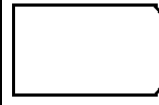
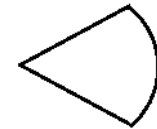
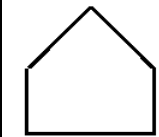
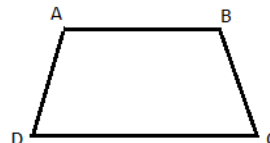
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
84	47	K	If ABCD is a square and AC is a diagonal, then $m(\angle ACD)$ is _____.		45°	60°	90°	135°	A
85	47	K	Fold square paper at its diagonal. What angle will it be between the diagonal and the side of the square?		30°	45°	60°	90°	B
86	47	A	How many match sticks of equal length are needed to construct five squares in the shape of a cross?		15	16	17	18	B
87	47	A	A square paper is divided into 9 equal parts as shown below. How many squares are there in total?		9	10	13	14	D
88	47	A	A rectangular paper is divided into 4 parts as shown below. How many squares and rectangles, respectively, are there in total?		2 and 2	3 and 4	2 and 6	3 and 9	D
89	47	A	ABCD is a square. E, F, G and H are midpoints of the sides of the square and P, Q, R and S are midpoints of EO, FO, GO and HO, respectively. How many squares are there in the figure?		5	6	8	10	D

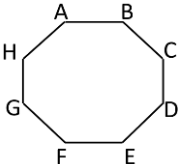
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
90	47	A	The figure shown below is a square. Which of the following is true about the given square?		$\triangle AOB$ is an equilateral triangle	$m(\angle ABD)$ is exactly 50°	$AC \neq BD$	$m(\angle ABD) = m(\angle BAC)$	D
91	48	K	Which one of the following statements is true about properties of a rhombus?		Opposite sides are not parallel	All interior angles are always right angles	Its diagonals are angle bisectors	Its diagonals may not be perpendicular	C
92	48	K	Among the following statements, which one is NOT the property of a rhombus?		All its sides are equal in length	All its interior angles are always congruent	Its diagonals are perpendicular to each other	Its pairs of opposite angles are congruent	B
93	48	K	Which of the following is NOT TRUE about rhombus?		Consecutive angles are equal	All sides are equal	Opposite sides are parallel	Diagonals bisect each other	A
94	48	K	Which of the following figures is a rhombus?						D
95	48	K	In the figure given below ABCD is a rhombus. Choose the correct property.		$AB=BD$	$AE+DE=CE+BE$	$AC=BD$	$AE=DE$	B
96	48	K	A rhombus is a four sided polygon having _____.		four sides equal	four angles equal	one pair of opposite sides parallel	four angles congruent and they are right angles	A

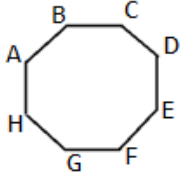
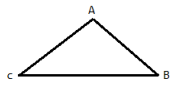
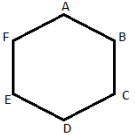
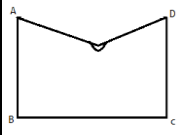
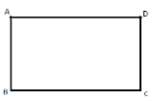
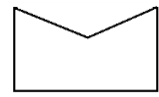
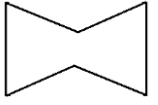
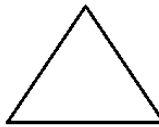
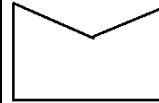
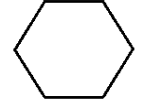
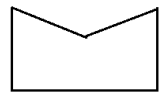
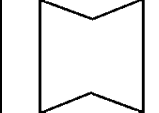
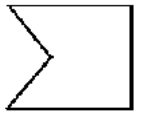
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
97	48	K	ABCD is a rhombus and AC and BD meet at a point O. Which one is correct about this rhombus?		$\triangle ABC$ is equilateral triangle	$m(\angle AOB) < 90^\circ$	$\triangle AOB$ is an isosceles triangle	$\triangle ABC$ is an isosceles triangle	D
98	48	K	The figure shown below is a rhombus. Which one of the following is FALSE about the figure?		Diagonals are equal	All sides are equal	Opposite sides are parallel	Opposite angles are equal	A
99	48	K	Identify the <u>wrong</u> statement about a rhombus.		All angles of a rhombus are equal	All sides of a rhombus are equal	Opposite sides of a rhombus are parallel	Opposite angles of a rhombus are equal	A
100	48	A	The figure obtained by joining the midpoints of rhombus taken in order is _____.		Rectangle	Rhombus	Square	Trapezium	A
101	48	A	A square paper is divided into 4 equal squares as shown in the figure below. Which one is NOT true about PMLN?		Rectangle	Rhombus	Square	Trapezium	D

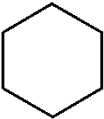
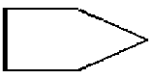
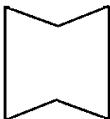
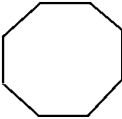
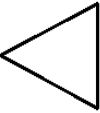
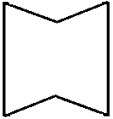
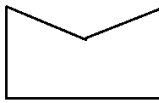
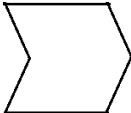
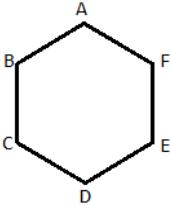
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
102	48	A	ABCD is a rhombus in which $m(\angle ACB) = 40^\circ$. $m(\angle ADB)$ is _____.		40°	45°	50°	60°	C
103	48	A	MNOP is a rhombus. Which of the following is true?		$m(\angle MON) = m(\angle MPN)$	$NQ = MQ$	$m(\angle MQP) = 90^\circ$	$m(\angle MNO) = 90^\circ$	C
104	48	A	Figure PQRS is a rhombus. Point O is the bisector of diagonal QS and PR. If $PO = x$, $OR = y - 1$, $OQ = 2x + 7$ and $OS = 4y - 5$, what is the value of x and y, respectively?		4 and 5	3 and 4	2 and 3	1 and 2	A
105	48	A	Consider a rhombus ABCD as shown in the figure below. If $m(\angle BCD) = 80^\circ$ then $m(\angle BDA) = 50^\circ$, how could that be?		Opposite angles of a rhombus are equal	The degree measure of the sum of two consecutive angles of a rhombus are 180°	Opposite sides of a rhombus are parallel	The diagonals of a rhombus are angle bisectors	D

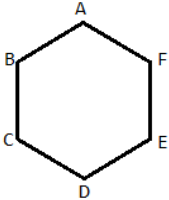
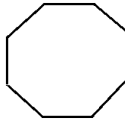
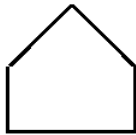
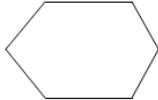
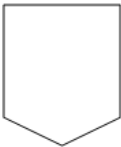
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
106	49	K	Which one of the following statements is correct?		Opposite sides of a rectangle are adjacent	The diagonal of a square is perpendicular	All angles of a rhombus are right angle	Trapezium is a type of parallelogram	B
107	49	K	Which one is correct?		A rectangle is a rhombus	A rhombus is a rectangle	A parallelogram is a rectangle	A rhombus is a parallelogram	D
108	49	K	Which of the following quadrilaterals is necessarily a rectangle?		Parallelogram	Rhombus	Square	Trapezium	C
109	49	K	A parallelogram must be a rectangle if its diagonals _____.		bisect each other	bisect the angles to which they are drawn	are perpendicular to each other	are congruent	D
110	49	K	Which property is common for parallelogram, rhombus and rectangle?		Opposite sides are parallel	All sides are equal in length	All angles are right angle	The diagonals bisect perpendicularly	A
111	49	K	Which of the following statements shows correct relationship?		A rectangle is a rhombus	A rhombus is a parallelogram	A rhombus is a rectangle	A parallelogram is a rhombus	B
112	49	K	Identify the correct statement about quadrilaterals.		Every trapezium is a parallelogram	Every rectangle is a square	All angles of a parallelogram are congruent	Every square is a rectangle	D
113	49	A	Quadrilateral ABCD is a parallelogram. If the adjacent angles are congruent, then which of the following statements is always true?		Quadrilateral ABCD is a square	Quadrilateral ABCD is a rectangle	Quadrilateral ABCD is a rhombus	Quadrilateral ABCD is a trapezium	B
114	49	A	ABCD is a rectangle. P, Q, R, S are mid-points of AB, BC, CD and DA, respectively. Which one is always CORRECT about quadrilateral PQRS?		PQRS is a rectangle	PQRS is a rhombus	PQRS is a square	$m(\angle SPQ) = m(\angle PQR)$	B
115	49	A	A parallelogram is a rectangle if _____.		opposite angles are congruent	opposite sides are equal	consecutive angles are equal	consecutive sides are equal	C

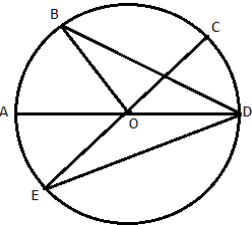
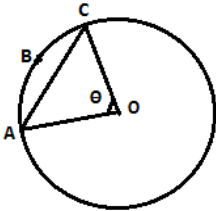
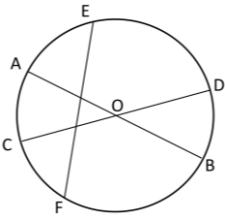
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
116	50	K	Which one of the following does NOT represent a polygon?						C
117	50	K	In the figure below, which one is NOT a polygon?						B
118	50	K	Which one of the following is regular polygon?		Circle	Isosceles triangle	Rectangle	Square	D
119	50	K	Which one is a regular polygon?		Parallelogram	Rectangle	Rhombus	Square	D
120	50	K	Which one of the following is a regular polygon?		Trapezium	Scalen triangle	Isosceles triangle	Equilateral triangle	D
121	50	K	Which of the following is true about a regular polygon?		All interior angles are different	Equal side length but different measures of interior angles	All of its sides are archs	All the sides and interior angles measure the same	D
122	50	K	A line segment joining any two non-consecutive vertices of a polygon is ____.		a straight line	diameter	diagonal	radius	C
123	50	K	Which of the following is true about the figure below?		It has four vertices	AB and BD are sides	AD and CB are diagonals	It has four diagonals	A
124	50	K	Which of the following is NOT true about a polygon?		It can be constructed using three line segments	It can be an open figure	The sum of the interior angles of an n-sided polygon is given by $(n-2)180$	There is a 50-sided polygon	B

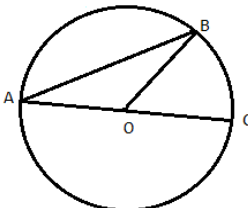
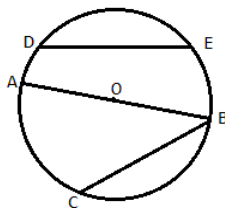
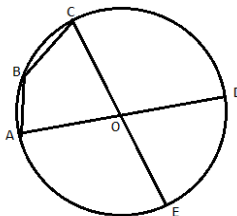
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
125	50	K	How many possible diagonals are there in a polygon of 6 sides?		5	9	14	120	B
126	50	K	The number of all possible diagonals in a hexagon is _____.		3	6	9	18	C
127	50	K	How many possible diagonals can be drawn from one vertex of octagon?		3	5	8	20	B
128	50	K	How many possible diagonals are there in a polygon of 12 sides?		54	60	66	72	A
129	50	K	How many possible diagonals are there in a polygon of three sides?		0	1	2	3	A
130	50	K	How many diagonals are drawn from <u>one vertex</u> of a polygon with 10 sides?		7	25	27	35	A
131	50	K	How many possible diagonals does a polyogon with 10 sides have?		10	27	30	35	D
132	50	K	The number of possible diagonals drawn from every vertex of 10 sided polygon is _____.		10	15	25	35	D
133	50	K	How many triangles can be constructed by drawing diagonals from vertex A in the figure below?		5	6	7	8	B
134	50	K	How many triangles are formed by diagonals from one vertex of a polygon having 6 sides?		2	4	5	6	B

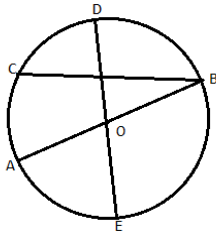
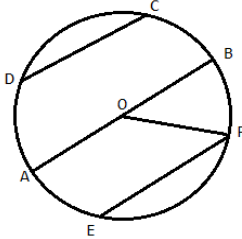
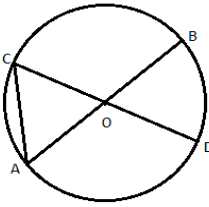
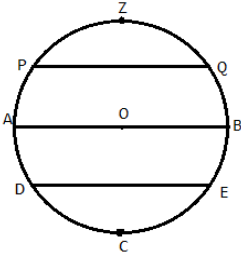
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
135	50	A	For a certain n-sided regular polygon let x be the degrees of each interior angle. Which of the following is NOT true?		If n increases then x also increases	The value of x is always less than 180°	If n is doubled then x also will be doubled	As n increases, the polygon will have circular shape	C
136	50	A	In the figure given below, find the sum of all interior angles.		1440°	1260°	1080°	720°	C
137	50	A	The measure of each interior angle of a regular octagon is _____.		120°	135°	140°	144°	B
138	51	K	Which one is an example of a concave polygon?						C
139	51	K	Identify the convex polygon.						C
140	51	K	Which one of the following polygons is a concave polygon?						C
141	51	K	Which one of the following diagrams is a convex polygon?						B

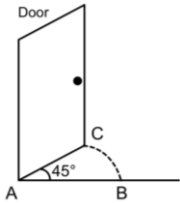
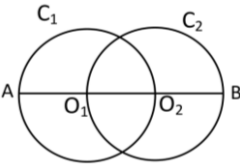
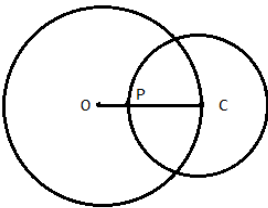
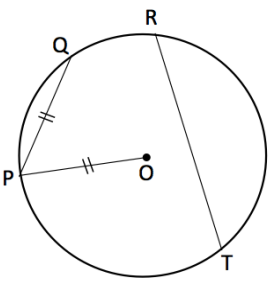
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
142	51	K	Which one of the following represents a concave polygon?						C
143	51	K	Which of the following polygons shows a convex polygon?						A
144	51	K	A polygon where each angle is less than 180° is _____.		concave	convex	hexagon	pentagon	B
145	51	A	Which of the following measures can be the measure of the interior angle of a 5-sided concave polygon?		$65^\circ, 70^\circ, 95^\circ, 120^\circ, 190^\circ$	$80^\circ, 95^\circ, 100^\circ, 105^\circ, 160^\circ$	$55^\circ, 65^\circ, 110^\circ, 135^\circ, 175^\circ$	$55^\circ, 95^\circ, 105^\circ, 113^\circ, 172^\circ$	A
146	51	K	Which of the following is NOT TRUE about the polygon shown below?		Six-sided polygon	A convex polygon	It has five vertices	It has six line segments	C
147	51	K	Which of the following is NOT true about a three-sided polygon?		It has 3 vertices	It has 3 line segments	It is a convex polygon	3 diagonals can be drawn from one vertex	D
148	51	K	A polygon is said to be a convex polygon, if _____.		each interior angle measures 180°	it has simple closed curve only	each interior angle measures less than 180°	at least one of its interior angles is greater than 180°	C
149	52	K	A group of students observed that the surface of a honey comb consists of many beautiful six sided polygons. How could these polygons be named?		Triangle	Rectangle	Pentagon	Hexagon	D

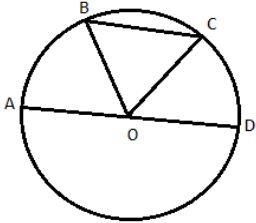
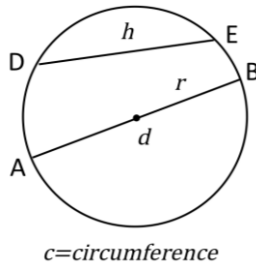
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
150	52	K	Which of the following polygons has more sides than the others?		Decagon	Hexagon	Nonagon	Octagon	A
151	52	K	If the number of sides of three polygons are 5, 7 and 8, then the name of the polygons respectively are _____.		octagon, heptagon, pentagon	hexagon, octagon, heptagon	pentagon, heptagon, octagon	heptagon, pentagon, hexagon	C
152	52	K	Name of a polygon which has 8 sides is _____.		decagon	dodecagon	heptagon	octagon	D
153	52	K	In the figure below, polygon ABCDEF is _____.		heptagon	hexagon	octagon	pentagon	B
154	52	K	What is the name of a polygon with 8 sides?		Decagon	Hexagon	Nonagon	Octagon	D
155	52	K	Which of the following polygons has more sides than the others?		Decagon	Heptagon	Pentagon	Quadrilateral	A
156	52	K	Which of the following figures represents a pentagon?						C
157	52	K	Which one of the following polygons is hexagon?						B
158	52	K	How many sides does a nanogon have?		7	8	9	10	C

S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
159	52	K	How many sides does an octagon have?		5	6	8	10	C
160	53	K	A set of points on a plane which are at equal distance from a fixed point is a _____.		triangle	quadilateral	polygon	circle	D
161	53	K	Which one of the following statements is true about a circle?		The center of a circle lies on any chord of the circle	The diameter of a circle is the longest chord	The radius of a circle is 1/4th the length of the diameter	There are chords whose length is greater than the diameter	B
162	53	A	In the following figure, if O is the center of the circle, which of the following is always true?		$BO + OE = AD$	$BD + DE = BE$	$OC + BD = AD$	$ED + OE = BE$	A
163	53	A	Which of the following is NOT true about the circle O shown below?		When $\theta = 60^\circ$, $\triangle AOC$ becomes equiangular	When $\theta = 90^\circ$, arc ABC equals 1/4 of the circumference	When $0^\circ < \theta < 180^\circ$, $\triangle AOC$ is isosceles	$\triangle AOC$ can be a scalen triangle	D
164	54	K	In the figure below, O is the center of the circle. Which of the following is NOT true?		AB is the longest chord	If the length of AO is 3 cm then the length of CD is 6 cm	The length of OC and OB are equal	EF can be longer than CD	D
165	54	K	Half of a diameter is _____.		chord	radius	secant	tangent	B

S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
166	54	K	The perimeter of a circle is _____.		circumference	diameter	radius	semicircle	A
167	54	K	A line segment joining tow points of a circle is _____.		tangent	radius	chord	arc	C
168	54	K	A line segment whose two end points are on the circle is _____.		arc	chord	radius	secant	B
169	54	K	Consider the following circle of center O. The line segment AC represents _____.		arc	chord	circumference	radius	B
170	54	K	Which of the following is the longest chord of a circle?		Center	Circumference	Diameter	Radius	C
171	54	K	The longest chord of a circle is _____.		diameter	radius	secant	tangent	A
172	54	K	Which of the following is NOT true about circle O below?		DE and CB are chords	AB is a diameter	AO and BO are radius	AB and BC are equal	D
173	54	K	In the figure below which of the following is NOT true about circle O?		AD and CE are diameters	BC and AB are radius	AO and EO are equal	OC and OD are equal	B

S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
174	54	K	Which of the following is NOT true about circle O below?		$m(\widehat{ACB}) = 180^\circ$	$\widehat{DBE} = \widehat{ACB}$	$\widehat{ACB} = \widehat{CDB}$	$\widehat{ACB} = \widehat{AEB}$	C
175	54	K	In the diagram below, which one of the following line segments represents a diameter in circle O?		DC	AB	EF	OF	B
176	54	K	In circle O given below, which one of the following is NOT correct about the circle?		OC and OA are radius	CD and AB are diameters	CD and AC are chords	AC and AB are radius	D
177	54	K	In the figure below, in circle O, which one is the diameter?		AB	PQ	DE	AO	A
178	54	K	Which of the following is true about circle?		The radius and diameter are always equal	If the radius is doubled its area is also doubled	If the diameter is halved its area is also halved	If the radius is doubled the diameter is also doubled	D

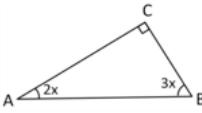
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
179	54	A	The surface of a door has a width of 1m. When it is half open, it makes 45° . What is the distance BC?		$2\pi m$	$1/2\pi m$	$1/4\pi m$	$1/8\pi m$	C
180	54	A	In the following figure, C_1 and C_2 are circles with O_1 and O_2 centers, respectively. If the diameter of C_1 is D_1 and the diameter of C_2 is D_2 , with AB the line segment, then which of the following is always true?		$D_1 = 2D_2$	$AB = 2D_1$	$O_1O_2 = D_1$	$AB = 2D_2 - r_1$	D
181	55	K	As shown in the figure below two circles with centers O and C are given and P is a point on the line segment OC. If the diameter of circle O is 20 cm and the diameter of circle C is 14 cm, what is the length of OP?		5cm	4cm	3cm	2cm	C
182	55	K	Which one is true about circle O shown below?		Every point on this circle is equidistant from O.	PO is the shortest chord of the circle.	PQ is called the radius of the circle.	RT is the longest chord.	A

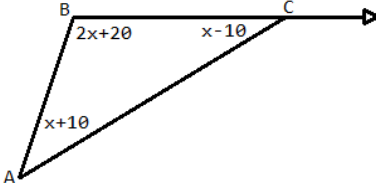
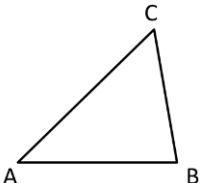
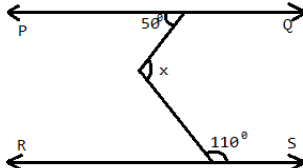
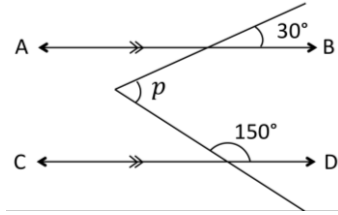
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
183	55	K	In the following circle, if O is the center, which of the following is true?		$AD=OB+OC$	$BC+OC=AO+OC$	$OC=BO-BC$	$2AO=BC=OC$	A
184	55	K	If r =radius, d =diameter, c =circumference, and h =chord of a circle, which of the following equations is true?	 $c=\text{circumference}$	$h=2c$	$d=2r$	$c=2d$	$r=2h$	B
185	55	K	What is the radius of a circle with the diameter 6cm?		2cm	3cm	12 cm	18cm	B
186	55	A	If a circle with center O and radius 8cm is given, then _____.		we can draw a chord with 19cm long for this circle	we can draw a chord with 16cm long for this circle	for a point P inside this circle, we get $OP>8\text{cm}$	for a point Q on the circumference of this circle, we get $OQ<8\text{cm}$	B
187	55	A	Which of the following statements is true about the radius, chord and diameter in a given circle with center O?		The longest chord of a circle is a radius	The radius and a chord of a circle are equal	A diameter of a circle is twice a radius	A chord of a circle always passes through the center	C
188	56	K	Which of the following is true?		The degree measure of a straight line is 90^0	The sum of the degree measure of interior angles of a triangle is 180^0	The degree measure of alternate interior angles is always 90^0	The degree measure of the angles of a triangle could be calculated if we know the lengths of the sides	B

S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
189	56	K	Find the value of K in the given figure.		45°	55°	90°	145°	B
190	56	K	In the figure below, if $\alpha + \beta = 180^\circ$ and $\alpha = 2\beta$ then $\alpha =$ _____.		30°	45°	60°	120°	D
191	56	K	In the diagram given below, if $AB \parallel CD$, what is $m(\angle x)$?		55°	60°	65°	70°	A
192	56	K	In the figure below, if $AB \parallel CD$ then which one is true?		$y = x - 180^\circ$	$x + y = 180^\circ$	$x = y$	$x = y - 180^\circ$	B
193	56	K	In the figure below, if $l_1 \parallel l_2$ and l_3 is a transversal line, then which one is true?		$b=f$	$e=h$	$b=c$	$g=b$	B

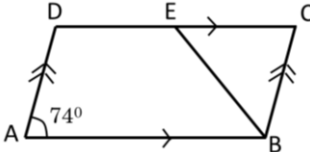
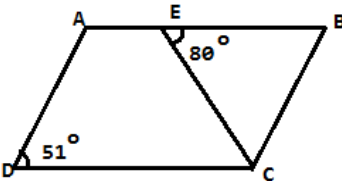
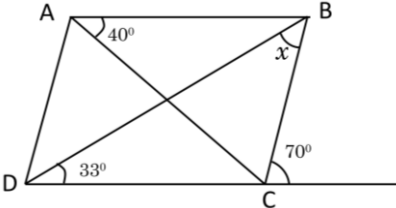
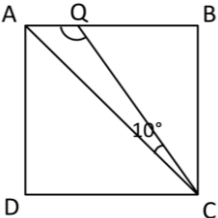
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
194	56	K	If l_1 and l_2 are parallel lines and l_3 is a transversal line, which of the following is true about the figure below?		$\angle a = \angle x$	$\angle f = \angle a$	$\angle d = \angle a$	$\angle x = \angle c$	B
195	56	K	If α and β are supplementary angles and $\beta = 1/2\alpha$, what is the measure of β ?		30°	50°	60°	70°	C
196	58	K	The degree measure of an interior angle of a triangle is 75° , 45° , and k° , then find the degree measure of unknown angle k .		50°	55°	60°	65°	C
197	58	K	The value of x in the figure below is _____.		56°	60°	64°	120°	B
198	58	K	Let $\triangle ABC$ be a right-angled triangle where the right angle is at A. If $m(\angle B) = 34^\circ$, then $m(\angle C) =$ _____.		28°	56°	84°	112°	B
199	58	K	Let P, Q and R be vertices of a triangle. If $m(\angle P) = 47^\circ$, $m(\angle Q) = 110^\circ$, then $m(\angle R) =$ _____.		70°	63°	46°	23°	D
200	58	K	Which of the following statements is true?		The acute angles of right triangle are supplementary	A triangle can have more than one right angle	The measure of each angle of an isosceles triangle is 45°	The sum of all exterior angles of a triangle is 360°	D

S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
201	58	A	Calculate the value of variables x, y respectively in the given figure.		41, 102	37, 102	37, 78	78, 102	B
202	58	A	Consider the figure shown below and find t and u which are the degree measures of the angles shown.		$t=80^\circ$ and $u=90^\circ$	$t=100^\circ$ and $u=80^\circ$	$t=90^\circ$ and $u=90^\circ$	$t=100^\circ$ and $u=30^\circ$	A
203	58	A	The figure below shows rectangle EFGH with $m(\angle HFG)=30^\circ$. What is the value of θ ?		120°	90°	60°	30°	C
204	58	A	In rhombus CDEF, the degree measure of $\angle CDE$ is 110° . What is the degree measure of $\angle FCE$?		35°	55°	70°	110°	A

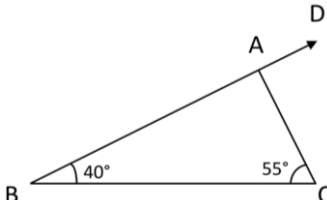
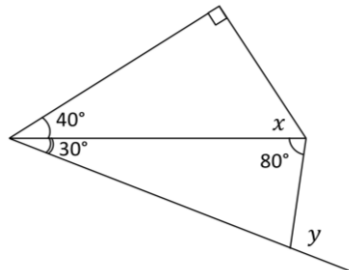
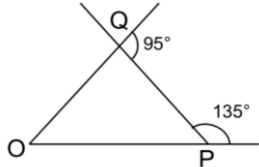
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
205	58	A	What is the measure of $\angle B$ of the triangle ABC shown in the figure below?		17°	34°	51°	54°	D
206	58	A	If the angles of a triangle are $(x-30)^\circ$, x° , $(x+30)^\circ$, then the measure of the angles of the triangle are:		$30^\circ, 50^\circ, 100^\circ$	$40^\circ, 60^\circ, 80^\circ$	$60^\circ, 60^\circ, 60^\circ$	$30^\circ, 60^\circ, 90^\circ$	D
207	58	A	If the measure of the angles of triangle are $4x$, $6x$ and $8x$, then find the measure of the smallest angle.		20°	40°	60°	80°	B
208	58	A	If the measure of the angles of a triangle are x , $2x$ and $3x$, then the measure of the largest angle is _____.		30°	45°	60°	90°	D
209	58	A	The angles of a triangle are in the ratio of 2:3:4. What is the measure of the smallest angle?		80°	60°	40°	20°	C
210	58	A	The angles of a triangle are in the ratio of 1:2:3. What is the size of the smallest angle in degree?		20°	30°	60°	90°	B
211	58	A	The angles of a triangle are in the ratio of 3:4:5. What is the size of the largest angle in degrees?		15°	45°	60°	75°	D
212	58	A	The angles of a triangle are in the ratio of 1:2:3. Find the measure of the smallest angle in degree.		20°	30°	60°	90°	B
213	58	A	If the angles of a triangle are in the ratio of 1:3:5, then what is the degree measure of the largest angle?		20°	60°	100°	180°	C
214	58	A	If the measure of the angles of a triangle are x , $2x$ and $3x$, then the type of triangle is _____.		an acute angle triangle	a right angle triangle	an obtuse angle triangle	an equilateral triangle	B

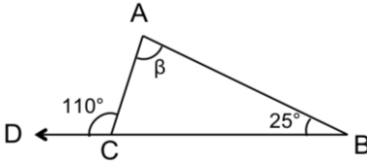
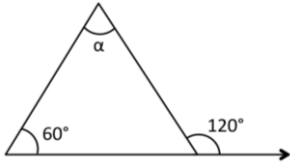
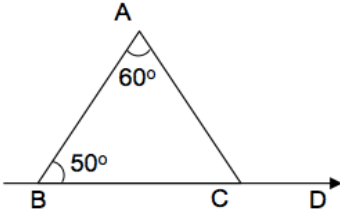
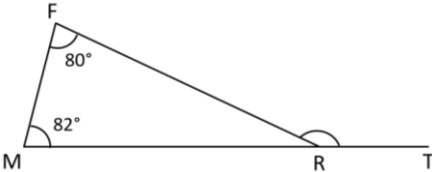
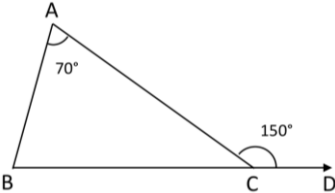
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
215	58	A	One angle of a triangle is 54° and the measure of the second angle is two times the third, then what are the remaining angles?		42° and 84°	54° and 108°	42° and 54°	52° and 104°	A
216	58	A	Find the value of x in the figure below.		20	30	40	50	C
217	58	A	In triangle ABC, $\angle B$ is 32° greater than $\angle A$. And $\angle C$ is 22° less than $\angle B$. What is the measure of $\angle A$?		46°	54°	56°	78°	A
218	58	A	In the figure shown below, $PQ \parallel RS$. What is the measure of angle x?		160°	120°	70°	60°	B
219	58	A	In the diagram below $AB \parallel CD$, what is $m(\angle p)$?		30°	60°	120°	150°	B

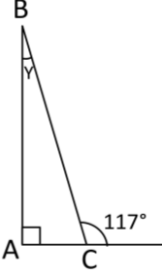
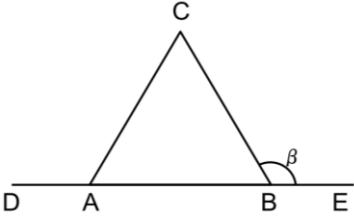
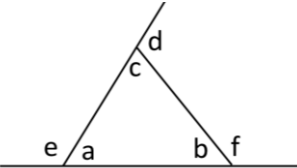
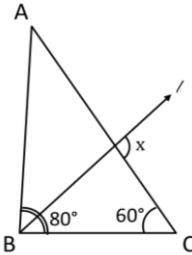
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
220	58	A	In the figure below which one is true if $AB \parallel CD$?		$x+y=z+r$	$x+y+r=180^\circ$	$x=y$	$r=z-180^\circ$	B
221	58	A	Which one of the following is true about the figure below if $l_1 \parallel l_2$ and l_3 and l_4 are transversal lines?		$\angle c = \angle x + \angle y$	$\angle d = \angle a + \angle c$	$\angle y = \angle x + \angle c$	$\angle d = \angle a + \angle b$	B
222	58	A	In the figure below, the sum of a, b, c, d, e, and f can be found by _____.		$(3 \times 180^\circ) - 180^\circ$	$(3 \times 180^\circ) - 360^\circ$	$(4 \times 180^\circ) - 180^\circ$	$(2 \times 180^\circ) - 180^\circ$	A
223	58	A	In the figure below what is the sum of the measures of a, b, c, d, e, f, g and h of the marked angles?		720°	540°	360°	180°	C

S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
224	58	A	In the parallelogram ABCD given below BE bisects $\angle ABC$. What is the measure of $\angle BEC$?		106°	74°	53°	43°	C
225	58	A	In the figure below ABCD is a parallelogram with $m(\angle ADC) = 51^\circ$. A line through C meets AB at E and $m(\angle BEC) = 80^\circ$. Then $m(\angle ECB)$ is _____.		49°	60°	80°	129°	A
226	58	A	In the figure below, ABCD is a parallelogram. What is the value of the angles marked x?		30°	37°	40°	73°	B
227	58	A	In the figure below, ABCD is a square. If $m(\angle ACQ) = 10^\circ$ find $m(\angle AQC)$.		55°	125°	150°	170°	B

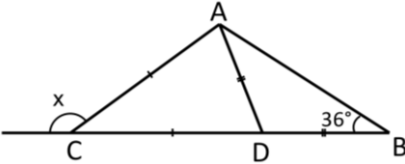
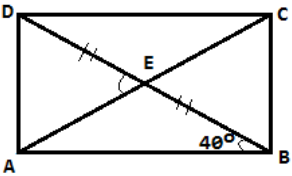
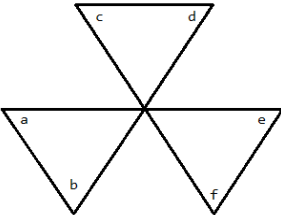
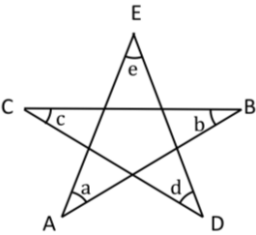
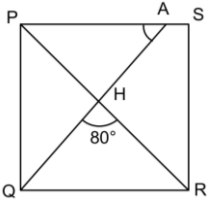
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
228	58	A	In the diagram below, if $PQ \parallel RS$, what is $m(\angle a) + m(\angle b)$?		80°	160°	180°	200°	D
229	58	A	In the diagram below, what is $m(\angle a) + m(\angle b) + m(\angle c)$?		180°	150°	140°	120°	C
230	58	A	In the triangle $\triangle ABC$, $AB=BC=DC$. The measure of angle $A=70^\circ$. What is the measure of $\angle ABD$?		40°	75°	85°	90°	B
231	58	A	In the figure below, find the value of x and y.		$x = 80^\circ$ and $y = 60^\circ$	$x = 60^\circ$ and $y = 80^\circ$	$x = 45^\circ$ and $y = 40^\circ$	$x = 45^\circ$ and $y = 80^\circ$	D

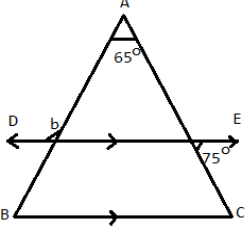
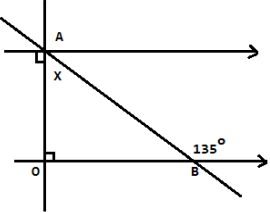
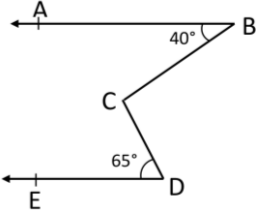
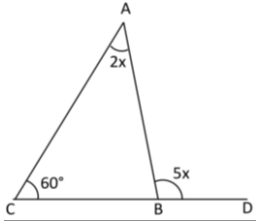
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
232	58	A	If the sum of the three angles of a quadrilateral is equal to $\frac{4}{5}$ times the sum of the three angles of a triangle, what is the measure of the fourth angle of the quadrilateral?		144°	180°	216°	360°	C
233	59	K	The measure of an exterior angle of a triangle is _____.		equal to the sum of non-adjacent interior angles	less than the sum of two remote interior angles	greater than the sum of two remote interior angles	always 180°	A
234	61	K	In triangle ABC shown below, what is the measurement of $\angle CAD$?		85°	95°	125°	140°	B
235	61	K	Find the values of x and y on the figure below which are the measures of the respective angles.		$x=110^\circ$ and $y=50^\circ$	$x=100^\circ$ and $y=25^\circ$	$x=50^\circ$ and $y=110^\circ$	$x=45^\circ$ and $y=135^\circ$	C
236	61	K	Find $m(\angle OPQ) + m(\angle QOP)$ in the given figure.		45°	50°	85°	95°	D

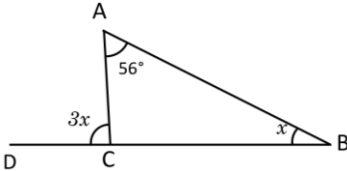
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
237	61	K	In the figure below, what is the value of β ?		70°	85°	135°	155°	B
238	61	K	The degree measure of the marked angle in the figure below is _____.		45°	55°	60°	65°	C
239	61	K	In the following figure, if $m(\angle A) = 60^\circ$ and $m(\angle B) = 50^\circ$ then what is $m(\angle ACD)$?		50°	60°	70°	110°	D
240	61	K	On the triangle below, what is the measure of $\angle FRT$?		80°	82°	100°	162°	D
241	61	K	In the following figure if ABC is a triangle with $m(\angle A) = 70^\circ$ and $m(\angle ACD) = 150^\circ$ then what is the measure of angle B?		30°	70°	80°	100°	C

S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
242	61	K	Find the value of 'Y' in the given triangle below.		27	45	63	90	A
243	61	K	In the figure below, $\triangle ABC$ is an equilateral triangle. What is the measure of β ?		60°	90°	120°	150°	C
244	61	K	In the diagram given below, which statement is true?		$a+c=d$	$a+b=e$	$a+b=d$	$b+c=a$	C
245	61	A	In the diagram below, if line ℓ bisects angle B, what is $m(\angle x)$?		40°	60°	80°	100°	D

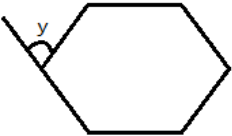
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
246	61	K	The degree measure of an interior angle of $\angle BAC$ is _____.		22°	70°	88°	90°	A
247	61	K	Find the degree measure of x, y, z in the interior angle of the given triangle respectively.		$55^\circ, 70^\circ, 55^\circ$	$55^\circ, 75^\circ, 50^\circ$	$65^\circ, 55^\circ, 60^\circ$	$60^\circ, 70^\circ, 50^\circ$	B
248	61	A	Consider the figure given below. What is the value of x?		20°	45°	70°	80°	C
249	61	A	$\triangle ABC$ is a triangle with right angle at A, with $m(\angle C)=30^\circ$, and $DE \parallel AB$. What is the measure of angle DEB?		30°	60°	90°	120°	D
250	61	A	As shown in the figure given below $m(\angle GDC)=40^\circ$, $m(\angle AED)=110^\circ$ and $m(\angle CAB)=50^\circ$ then what is $m(\angle FBA)$?		70°	110°	140°	160°	D

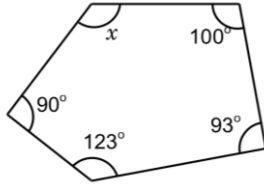
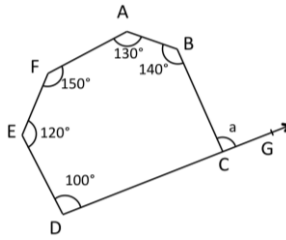
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
251	61	A	In the figure below if $AD \cong DB$ and $AC \cong CD$, then what is the value of angle x ?		72°	108°	144°	160°	C
252	61	A	The figure shown below is a rectangle. If $m(\angle ABD)$ is 40° , what is $m(\angle AED)$?		100°	80°	50°	40°	B
253	61	A	In the figure below what is the sum of the measures of the angles given by a, b, c, d, e and f ?		180°	360°	540°	720°	B
254	61	A	In the figure below, what is the sum of the measures of angles given by a, b, c, d and e ?		180°	360°	540°	900°	A
255	61	A	Figure PQRS is a square. AQ and PR intersect at H and measure of $\angle QHR = 80^\circ$. What is the degree measure of $\angle QAP$?		55°	80°	100°	125°	A

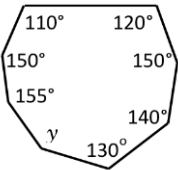
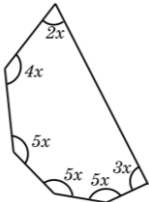
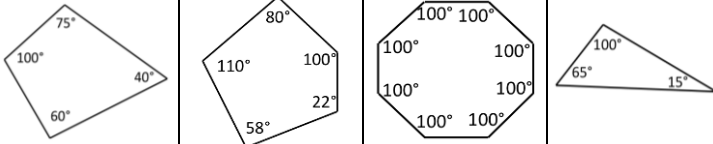
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
256	61	A	In $\triangle ABC$ shown below, if $DE \parallel BC$, what is the measure of the angle marked by b ?		40°	75°	105°	140°	D
257	61	A	What is the measure of x in the triangle AOB in the given figure below?		35°	45°	90°	135°	B
258	61	A	In the following figure if $AB \parallel ED$, $m(\angle CBA) = 40^\circ$ and $m(\angle CDE) = 65^\circ$, then what is $m(\angle BCD)$?		65°	75°	105°	115°	C
259	61	A	In the figure below, where $m(\angle CAB) = 2x$, $m(\angle ACB) = 60^\circ$, and $m(\angle ABD) = 5x$, then what is $m(\angle CAB)$?		20°	40°	60°	100°	B

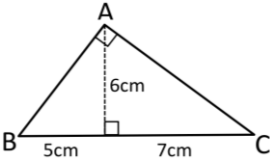
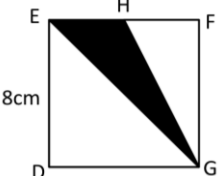
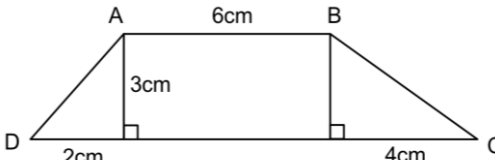
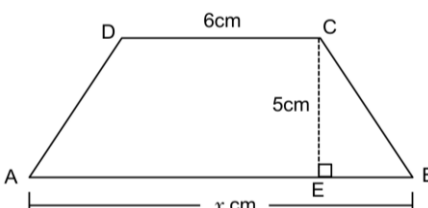
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
260	61	A	In the figure below, if $m(\angle B)=x$, $m(\angle ACD)=3x$ and $m(\angle BAC)=56^\circ$, then $m(\angle ACB)=$ _____.		28°	56°	84°	96°	D
261	61	A	Find the sum of the degree measure of the three remote exterior angles of an equilateral triangle.		180°	360°	540°	720°	B
262	62	K	The formula for the number of triangles determined by diagonals drawn from one vertex of n-sided polygon is _____.		$n-1$	$n-2$	$n-3$	$n-4$	B
263	62	K	Which of the following formulas will you use to calculate the sum of the interior angles of a polygon?		$\frac{n(n-3)}{2}$	$(n-2)180^\circ$	$n-2$	$\frac{(n-2)180}{n}$	B
264	62	A	How many distinct triangles can a polygon be divided into if it has 26 sides?		24	25	27	28	A
265	62	A	If the number of diagonals from one vertex of a convex polygon is 4, then the number of sides of the polyogn is _____.		6	7	8	12	B
266	63	K	What is the sum of the interior angles of a polygon with 5 sides?		360°	540°	640°	900°	B
267	63	K	What is the sum of the degree measure of a six-sided polygon?		360 degrees	720 degrees	1080 degrees	1440 degrees	B
268	63	K	What is the sum of the interior angles of a 6-sided convex polygon?		150°	180°	540°	720°	D
269	63	K	What is the sum measure of all interior angles in a polygon with 7 sides?		1260°	1080°	900°	720°	C

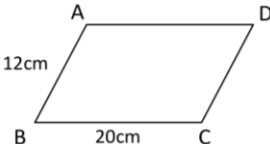
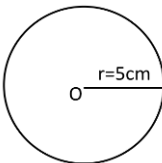
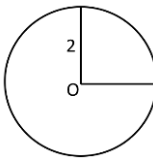
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
270	63	K	The measure of the sum of all interior angles of a hexagon is _____.		360°	540°	720°	900°	C
271	63	K	What is the total measure of the interior angles of a polygon having 10 sides?		1220°	1440°	1800°	2160°	B
272	63	K	Find the sum of the measures of all interior angles of a polygon having 15 sides.		2340°	3240°	4230°	4320°	A
273	63	K	The sum of the measures of all the interior angles in a polygon having 20 sides is _____.		5040°	4140°	3240°	2340°	C
274	63	K	The degree measure of each interior angle of a regular 8-sided polygon is _____.		22°	45°	135°	172°	C
275	63	K	A polygon has 10 sides. If all the interior angles of this polygon are congruent to one another, then what is the measure of each angle?		120°	144°	135°	152°	B
276	63	K	The degree measure of each interior angle of a regular decagon is _____.		120 degrees	135 degrees	140 degrees	144 degrees	D
277	63	K	Find the degree measure of each interior angle of a regular polygon having 24 sides.		150°	160°	165°	170°	C
278	63	K	Find the degree measure of each interior angle of a regular 30-sided polygon.		170°	168°	160°	150°	B
279	63	K	Which of the following CANNOT be the measure of an interior angle of a regular polygon of n sides?		150°	160°	170°	180°	D
280	63	K	Which of the following CANNOT be an interior angle of a regular polygon?		135°	150°	160°	169°	D
281	63	K	A regular polygon CANNOT have an interior angle of _____.		135°	160°	167°	171°	C

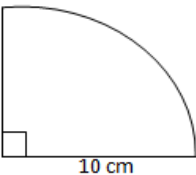
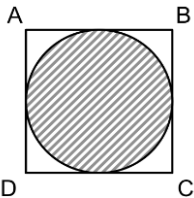
S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
282	63	K	In the diagram given below, what is the value of y if the given polygon is a regular hexagon?		135°	120°	60°	45°	C
283	63	A	If the sum of the measure of the interior angles of a polygon is 540° , then how many sides does the polygon have?		5	7	8	9	A
284	63	A	If the sum of the measure of the interior angles of a polygon is 720° , how many sides does the polygon have?		7	6	5	4	B
285	63	A	The sum of the measure of all the interior angles of a polygon is 1080° . How many sides does the polygon have?		8	9	10	12	A
286	63	A	If the sum measure of all interior angles of a convex polygon is 1080° , how many sides does the polygon have?		5	6	7	8	D
287	63	A	If the sum of the interior angles of a convex polygon is 1440° , then what is the number of sides of the polygon?		8	9	10	11	C
288	63	A	The sum of the measure of all the interior angles of a regular polygon is 5040° . Find the number of sides of the polygon.		28	30	35	40	B
289	63	A	If each interior angle of a regular polygon is 60° , how many sides does the polygon have?		3	4	5	6	A
290	63	A	What is the number of sides of a regular polygon if the measure of each exterior angle is 60° ?		6	5	4	3	A

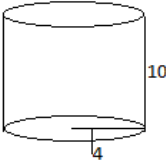
S.N.	Competency No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
291	63	A	If each angle of a regular polygyn is 140° , then the number of sides of the polygon is _____.		7	8	9	12	C
292	63	A	If the degree measure of each interior angle of a regular polygon is 140° , how many sides does the polygon have?		6	7	8	9	D
293	63	A	How many sides does a regular polygon have if each of its interior angles measures 150° ?		9	10	11	12	D
294	63	A	How many sides does a regular polygon have if each interior angle measures 160° ?		13	16	18	19	C
295	63	A	Each interior angle of a regular convex polygon is 120° . How many sides does it have?		6	7	10	12	A
296	63	A	If the interior angles of a heptagon are 110° , 120° , 130° and all the others are equal, then what is the measure of each of the other angles?		108°	135°	180°	540°	B
297	63	A	In the figure below, what is the degree measure of x?		93°	100°	123°	134°	D
298	63	A	In the following polygon ABCDEF, if CG is the extension of DC, then what is the measure of the angle marked by a?		80°	100°	120°	150°	B

S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
299	63	A	The degree measure of y in the figure below is _____.		125°	135°	145°	160°	A
300	63	A	The angles of a hexagon are $2x$, $3x$, $5x$, $5x$, $5x$ and $4x$. What is the value of x?		25°	26°	28°	30°	D
301	63	A	Which of the following gives the correct measures of angles?						D
302	63	A	If the angles of a pentagon measure x° , $2x^\circ$, $(2x-2)^\circ$, $(3x-8)^\circ$ and $x+10^\circ$, then what is the value of x?		60°	70°	120°	172°	A
303	63	A	If the angles of a hexagon are $2y$, $5y$, $7y$, $4y$, $2y$ and $4y$, find the value of y.		15°	30°	45°	60°	A
304	63	A	The angles of a hexagon are $2x$, $3x$, $2y$, $3x$, $y+40$ and $3x$. If $y=2x$, then what is the value of x and y, respectively?		30, 70	40, 80	70, 30	80, 40	B
305	63	A	The interior angles of a hexagon are $2x$, $2x-50$, $2x$, $2x-10$, $x+20$ and $x+10$. Then calculate the value of x.		72°	75°	89°	92°	B
306	63	A	If consecutive angles of a pentagon differ by 10, then the angles of the pentagon are _____.		$80^\circ, 90^\circ, 100^\circ, 110^\circ, 120^\circ$	$88^\circ, 98^\circ, 108^\circ, 118^\circ, 128^\circ$	$90^\circ, 100^\circ, 110^\circ, 120^\circ, 130^\circ$	$98^\circ, 108^\circ, 118^\circ, 128^\circ, 138^\circ$	B

S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
307	65	K	In the $\triangle ABC$ below, what is the area of $\triangle ABC$?		15cm^2	18cm^2	21cm^2	36cm^2	D
308	65	A	The figure shown below is a square with side 8cm long. If H is the midpoint of EF, what is the ratio of the shaded part to the un-shaded part?		3:4	2:3	1:3	1:4	C
309	66	A	Almaz wants to produce onion on right-angled triangle farm land. If 24m^2 and 8m are the area and one leg of the triangle, then what is the length of the second leg?		3m	6m	9m	10m	B
310	69	K	What is the area of the trapezium given below?		18cm^2	24cm^2	27cm^2	32cm^2	C
311	69	A	In the figure shown below, find the length of trapezium AB (x) where its area is 65cm^2 .		20cm	30cm	26cm	31cm	A
312	69	A	The distance between the bases of a trapezium is 6cm and one of the base is 5cm long with an area of 60cm^2 . What is the length of the other base?		5cm	10cm	12cm	15cm	D

S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
313	72	K	If the altitude of a parallelogram is 8cm and the base is 6cm, what is the area of the parallelogram?		24cm	24cm ²	48cm	48cm ²	D
314	72	A	ABCD is a parallelogram with AB=12cm and BC=20cm. Which one is correct?		Perimeter (ABCD) = 32 cm	Perimeter (ABCD) = 64 cm	Area (ABCD) = 120 cm ²	Area (ABCD) = 240 cm ²	B
315	75	K	The perimeter of a circle is _____.		circumference	diameter	radius	semicircle	A
316	75	K	Calculate the circumference of the circle whose radius is 5cm.		10 cm	10π cm	25 cm	25π cm	B
317	75	K	The figure given below is a circle with center at O. Which of the following statements is INCORRECT?		Its area is 4π sq units	Its circumference is 4π units	Its area and circumference are always equal	Its area and circumference are not equal in most cases	C
318	75	A	If the circumference of a circle is 100π cm, then what is the area of this circle?		$200\pi\text{cm}^2$	$2500\pi\text{cm}^2$	$3000\pi\text{cm}^2$	$3500\pi\text{cm}^2$	B
319	75	A	If the area of a circle is $6.25\pi\text{cm}^2$ then what is the circumference of the circle?		$5\pi\text{cm}$	$5.25\pi\text{cm}$	$6\pi\text{cm}$	$6.25\pi\text{cm}$	A
320	75	A	A window in the shape of a semi-circle has a radius of 14cm. What is the perimeter of the window? (use $\pi=22/7$)		14cm	44cm	72cm	88cm	C

S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
321	75	A	What is the perimeter of the quarter circle given below?		$(5\pi+10)\text{cm}$	$(5\pi+20)\text{cm}$	$(10\pi+10)\text{cm}$	$(10\pi+20)\text{cm}$	B
322	76	K	Which of the following is NOT correct, where r is radius and c circumference?		Area of a circle= πr^2	Circumference of a circle= $2\pi r$	Diameter of a circle= r^2	Radius of a circle= $c/2\pi$	C
323	76	K	The area of a circle with radius 4cm is _____.		$4\pi\text{cm}^2$	$8\pi\text{cm}^2$	$16\pi\text{cm}^2$	$48\pi\text{cm}^2$	C
324	76	A	If the area of a circle is $36\pi\text{cm}^2$, then what is the radius of the circle?		6cm	9cm	12cm	18cm	A
325	76	A	What is the diameter of a circle if its area is $25\pi\text{cm}^2$?		4	5	8	10	D
326	76	A	What is the area of a circle if its circumference is $12\pi\text{cm}$?		$12\pi\text{cm}^2$	$24\pi\text{cm}^2$	$36\pi\text{cm}^2$	$48\pi\text{cm}^2$	C
327	76	A	ABCD is a square and its area is 16cm^2 . What is the area of the shaded region? ($\pi=3.14$)		12cm^2	12.6cm^2	12.7cm^2	12.56cm^2	D
328	76	A	Which of the following circles has the largest area? A circle with:		radius 6cm	diameter 10cm	circumference 20cm	the longest chord of 8 cm	A
329	80	A	Which of the following is true, when lateral surface area is 4 times the base area of a cylinder?		The height of a cylinder is equal to the radius	The height of a cylinder is half of the radius	The height of a cylinder is two times the radius	The height of a cylinder is four times the radius	C

S.N.	Com- peten- cy No.	Level (K or A)	Stem	Figure/Table	A	B	C	D	Key
330	81	A	The height of a right circular cylinder is 2 times the length of the radius. Find the total surface area of the cylinder in terms of height (h).		$4\pi h^2$	$4\pi h$	$2\pi h^2/3$	$3\pi h^2/2$	D
331	81	A	Identify the correct statement about the figure below.		Its lateral surface area is 40π sq. units	Its lateral surface area is 62π sq. units	Its total surface area is 112π sq. units	Its total surface area is 160π sq. units	C
332	86	A	If the total surface area of a cube is 96cm^2 , then what is the volume of the cube?		24cm^3	64cm^3	96cm^3	192cm^2	B
333	88	A	If the total surface area of a cylinder with base diameter 8cm is $80\pi\text{cm}^2$, then what is its volume?		$36\pi\text{cm}^3$	$96\pi\text{cm}^3$	$160\pi\text{cm}^3$	$192\pi\text{cm}^3$	B
334	88	A	If the lateral surface area of a cylinder with height 4cm is $24\pi\text{cm}^2$, then what is its volume?		$36\pi\text{cm}^3$	$48\pi\text{cm}^3$	$72\pi\text{cm}^3$	$96\pi\text{cm}^3$	A