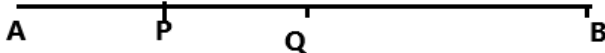
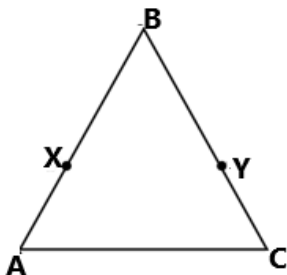


INDIAN SCHOOL AL WADI AL KABIR
Class IX, Mathematics
 WORKSHEET_INTRODUCTION TO EUCLID'S GEOMETRY

OBJECTIVE TYPE (1 Mark)

Q.1.	Euclid stated all right angles are equal to each other in the form of:							
	A	An axiom	B	A definition	C	A postulate	D	A proof
Q.2.	Two tanks have equal volume of water. After 10 L of water is taken out from each tank, the tanks still have the same volume. Which of these axioms is demonstrated by this situation?							
	A	If equals are added to equals, the wholes are equals.	B	If equals are subtracted from equals, the wholes are equals	C	Things which are equal to the same thing are equal to one another.	D	A whole is greater than the part.
Q.3.	It is known that if $x + y = 10$, then $x + y + z = 10 + z$. The Euclid's axiom that illustrates this statement is:							
	A	First axiom	B	Second axiom	C	Fourth axiom	D	Fifth axiom
Q.4.	In Indus Valley Civilization (about 3000 B.C.), the bricks used for construction work were having dimensions in the ratio:							
	A	1: 3: 4	B	4: 2: 1	C	4: 4: 1	D	4: 3 : 2
Q.5.	Sam drew a circle with centre M and radius 10 cm. He then made following claims using Euclid's postulates. Claim 1: It is possible to construct infinite circles each with center M and that lie inside the given circle. Claim 2: It is possible to construct infinite circles each with center M and that lie outside the given circle. Which statement is true?							
	A	both the claims are correct	B	only Claim 2 is correct	C	only Claim 1 is correct	D	neither of the claims is correct
Q.6.	'Lines are parallel if they do not intersect 'is stated in the form of:							
	A	An axiom	B	A definition	C	A postulate	D	A proof
Q.7.	Euclid belongs to the country							
	A	Babylonia	B	Egypt	C	Greece	D	Rome
Q.8.	The number of lines that can pass through a single point is:							
	A	1	B	2	C	3	D	infinite

Q.9.	Euclid divided his famous treatise “The Elements” into							
	A	13chapters	B	12chapters	C	11chapters	D	9chapters
Q.10.	Boundaries of solids are							
	A	Public worship	B	Household rituals	C	Both (a) and (b)	D	None of these
Q.11.	Which one of the following needs a proof?							
	A	axiom	B	definition	C	postulate	D	theorem
Q.12.	Axioms are assumed as							
	A	Universal truths in all branches of mathematics	B	Universal truths specific to geometry	C	Theorems	D	definitions
Q.13.	In ancient India, the shapes of altars used for house hold rituals were:							
	A	Squares and circles	B	Triangles and rectangles	C	Trapeziums and pyramids	D	Rectangles and squares
Q.14.	A pyramid is a solid figure, the base of which is:							
	A	Only a triangle	B	Only a square	C	Only a rectangle	D	Any polygon
Q.15.	The number of dimensions, a point has:							
	A	1	B	2	C	3	D	0
	ASSERTION AND REASONING							
	DIRECTION: A statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option. (a)Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A). (b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A). (c) Assertion (A) is true but Reason (R) is false. (d) Assertion (A) is false but Reason (R) is true.							
Q.16.	Assertion(A): Euclidean geometry is valid only for curved surfaces. Reason(R): The things which are double of the same thing are equal to one another							
Q.17.	Assertion(A): If a point O be the mid-point of a line segment XY, then the relation among OX, YO and XY is $OX = OY = \frac{1}{2} XY$ Reason(R): The things which are halves of the same thing are equal to one another. .							

	Questions of 2 marks each
Q.18.	If Q is mid-point of line segment AB and P is mid-point of AQ then, show that $PQ = \frac{1}{4} AB$. Write the axiom which is related to this proof. 
Q.19.	Out of three lines AB, CD and EF, if $AB \parallel EF$ and $CD \parallel EF$, then what is the relation between AB and CD? And write the axiom used .
Q.20.	If A, B and C are three points on a line, and B lies between A and C, then prove that $AB + BC = AC$. 
Q.21.	Look at the Fig. Show that length AH > sum of lengths of AB + BC + CD. 
Q.22.	Solve the equation $a - 20 = 15$ and write the axiom used here.
	Questions of 3 marks each
Q.23.	Write any three Euclid's axioms
Q.24.	In fig. $\triangle ABC$, X and Y are the points on AB and BC respectively. If $BX = \frac{1}{2} AB$, $BY = \frac{1}{2} BC$ and $AB = BC$. Show that $BX = BY$. 
Q.25.	Write any three Euclid's Postulates.
Q.26.	Write the definition of the following terms according to Euclid's a) Line b) Point c) Surface
