

## Mathematics 10th Class English Medium Online Test

Sr	Questions	Answers Choice
1	The date presented in the form of frequency distribution is called:	A. distribution B. grouped data C. range data D. regrouped data
2	The formula of range is:	A. $X_{\max} - X_{\min}$ B. $X_{\max} + X_{\min}$ C. groups/wight D. none of these
3	The total of frequency up to an upper class limit or boundary is called:	A. frequency B. class frequency C. cumulative frequency D. relative frequency
4	A histogram is g group/ set of adjacent:	A. squares B. circles C. rectangle D. cube
5	Sum of the deviations of values x from its mean is always "i.e $\sum(x-\bar{x})$ "is to equal:	A. itself B. zero C. median D. mode
6	The formula of grouped data of the arithmetic mean is:	A. $\bar{X} = \sum X/n$ B. $\bar{X} = A + \sum fX/\sum X$ C. $\bar{X} = \sum fX/n$ D. $\bar{X} = l + n/f (n/2 - c)$
7	Coding formula of group data of the arithmetic mean is:	A. $\bar{X} = \sum fX/\sum f$ B. $\bar{X} = \sum fD/\sum f$ C. $\bar{X} = A + \sum fu/\sum f \times h$ D. $\bar{X} = A + \sum fu/\sum f$
8	The formula of group data of the median is:	A. $l + h/f (n/2 - c)$ B. $l + \sum fx/\sum f \times n$ C. $l + f_{<sub>m</sub>} - f_{<sub>1</sub>}/2f_{<sub>m</sub>} - f_{<sub>1</sub>} - f_{<sub>2</sub>} \times n$ D. $A + \sum fu/\sum f \times n$
9	The geometric mean of the a observations 2,4,8, is:	A. 2 B. 8 C. 4 D. no geometric mean
10	The harmonic mean of the observation 0,15,12, is:	A. 3.7 B. 7.3 C. 6.7 D. no harmonic mean
11	The measures that are used to determine the degree or extent of variation in a data set are called:	A. central value B. A.M C. measures of dispersion D. median
12	If variance is equal to 36 then the standard deviation will be:	A. 36 B. 6 C. -6 D. none of these
13	An _____ is defined as the union of two non-col-linear rays with some common end point:	A. angle B. vertex C. initial side D. terminal
14	If the rotation of the ray is clockwise, the angle is _____ in measure:	A. positive B. negative C. initial D. terminal
15	The circumference of a circle is divide into _____ degrees:	A. 180° B. 270° C. 360° D. 90°



33	A circle of radius 'r' has a circumference of:	<p>A. <math>\pi r^2</math></p> <p>B. <math>2\pi r</math></p> <p>C. <math>2\pi r^2</math></p> <p>D. <math>\frac{1}{2}\pi r</math></p>
34	A circle of radius 'r' has area:	<p>A. <math>\pi r^2</math></p> <p>B. <math>2\pi r</math></p> <p>C. <math>2\pi r^2</math></p> <p>D. <math>\frac{1}{2}\pi r</math></p>
35	An arc which is shorter than the half of the circumference is called:	<p>A. minor arc</p> <p>B. major arc</p> <p>C. segment</p> <p>D. semi arc</p>
36	The distance of any point of the circle to its center is called:	<p>A. radius</p> <p>B. diameter</p> <p>C. a chord</p> <p>D. an arc</p>
37	A straight line which cuts the circumference of a circle in two distinct points is called:	<p>A. chord</p> <p>B. secant</p> <p>C. tangent</p> <p>D. sector</p>
38	A line which has only one point in common with a circle is called:	<p>A. chord</p> <p>B. secant</p> <p>C. tangent</p> <p>D. sector</p>
39	Tangent drawn at the ends of diameter of a circle of _____ to each other:	<p>A. parallel</p> <p>B. perpendicular</p> <p>C. collinear</p> <p>D. none parallel</p>
40	The length of a tangent to a circle is from the given point to the point of:	<p>A. start point</p> <p>B. end points</p> <p>C. contact</p> <p>D. collinear</p>
41	In a circle, the tangents drawn at the ends of a chord make equal _____ with that chord	<p>A. square</p> <p>B. angle</p> <p>C. cube</p> <p>D. circle</p>
42	Diameter of a circle divides it into many parts?	<p>A. two</p> <p>B. three</p> <p>C. four</p> <p>D. countless</p>
43	Formula to determine the size of a class is:	<p>A. <math>X_{\max} - X_{\min}</math></p> <p>B. <math>X_{\max} + X_{\min}</math></p> <p>C. <math>\frac{\text{Range}}{\text{number of groups}}</math></p> <p>D. <math>\frac{\text{number of groups}}{\text{Range}}</math></p>
44	When the number of observations of a set of data is even then the median formula is:	
45	Formula of variance is group data is:	
46	A collection of well-defined distinct objects is called.	<p>A. subset</p> <p>B. Power set</p> <p>C. Set</p> <p>D. None of these</p>
47	The different number of ways to describe a set are.	<p>A. 1</p> <p>B. 2</p> <p>C. 3</p> <p>D. 4</p>
48	A set with no element is called.	<p>A. Subset</p> <p>B. Empty set</p> <p>C. Singleton set</p> <p>D. Super set</p>
49	The set $\{x/x \in W \wedge x \leq 101\}$ is.	<p>A. Infinite set</p> <p>B. Sub set</p> <p>C. Null set</p> <p>D. Finite set</p>
50	The set having only one element is called.	<p>A. Null set</p> <p>B. Power set</p> <p>C. Singleton set</p> <p>D. Subset</p>
51	Power set of an empty set is.	<p>A. <math>\emptyset</math></p> <p>B. <math>\{a\}</math></p> <p>C. <math>\{\emptyset, \{a\}\}</math></p> <p>D. <math>\{\emptyset\}</math></p>

52	The number of element in power set $\{1,2,3\}$ is.	A. 4 B. 8 C. 6 D. 9
53	If $A \subseteq B$ then $A \cup B$ is equal to	A. A B. B C. $\emptyset$ D. None of these
54	If $A \subseteq B$ then $A - B$ is equal to	A. A B. B C. $\emptyset$
55	$(A \cup B) \cup C$ is equal to	A. $A \cap (B \cup C)$ B. $(A \cup B) \cap C$ C. $A \cup (B \cup C)$ D. $A \cap (B \cap C)$
56	if A and B are disjoint sets , then $A \cup B$ is equal to.	A. A B. B C. $\emptyset$ D. $B \cup A$
57	If number of elements in se A is 3 and in set B is 2, then number or binary relations in $A \times B$ is.	A. 3 B. 4 C. 7 D. 12
58	The domain of $R = \{(0,2),(2,3),(3,3)(3,4)\}$ is.	A. $\{0,3,4\}$ B. $\{0,2,3\}$ C. $\{0,2,4\}$ D. $\{2,3,4\}$
59	The Range of $R = \{(1,3),(2,2),(3,1)(4,4)\}$ is.	A. $\{1,2,4\}$ B. $\{3,2,4\}$ C. $\{1,2,3,4\}$ D. $\{1,3,4\}$
60	Point $(-1,4)$ , lies in the quadrant.	A. I B. II C. III D. IV
61	The relation $\{(1,2),(2,3),(3,3)(3,4)\}$ is.	A. Onto function B. Into function C. Not a function D. One-One function.
62	if $A \cap B = \emptyset$ , then set A and B are .....sets.	A. sub B. over kaooubg C. Disjoint D. Power
63	If $A \subseteq B$ and $B \subseteq a$ , then	A. $A = B$ B. $A \neq B$ C. $A \cap B = \emptyset$ D. $A \cup B = \emptyset$
64	The complement of U is.....	A. U B. $\emptyset$ C. impossible D. Union
65	The complement of $\emptyset$ is.....	A. U B. $\emptyset$ C. Impossible D. Union
66	$A \cap A^c =$ .....	A. U B. $A^{c \cup c}$ C. $\emptyset$ D. A
67	$A \cup A^c =$ .....	A. U B. A C. $A^{c \cup c}$ D. <p><math>\langle p \text{ class="MsoNormal"&gt;!--[endif]--&gt;&lt;o:p&gt;&lt;/o:p&gt;&lt;/p&gt;</math></p>

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68	The set $\{x \mid x \in A \text{ and } x \notin B\}$ is.....	A. $A \cup B$ B. $A \cap B$ C. $A - B$ D. $B - A$
69	The point $(-5, -7)$ lies in ..... quadrant.	A. I B. II C. III D. IV
70	The point $(4, -6)$ lies in.....quadrant.	A. I B. II C. III D. IV
71	y co-ordinate of every pint on x-axis is.	A. +ve B. -Ve C. zero D. 1
72	x-coordinate of every pint on x-axis is.	A. +ve B. -ve C. zero D. 1
73	The domain of $\{(a,b), (b,c), (c,d)\}$ is.....	A. $\{a,b,c\}$ B. $\{b,c,d\}$ C. $\{a,b\}$ D. $\{a,b,c,d\}$
74	The range of $\{(a,a), (b,b), (c,c)\}$ is .....	A. $\{a,b\}$ B. $\{a,b,c\}$ C. $\{a\}$ D. $\emptyset$
75	Venn diagram was first used by.....	A. John Venn B. Netwon C. Arthur Cayler D. John Napier
76	A subset of $A \times A$ is called..... in A.	A. Set B. Relation C. Function D. Info function.
77	If $f: A \rightarrow B$ and range of $f = B$ , then $f$ is an.....	A. into function B. onto function C. bijective function D. function
78	The relation $\{(a,b), (b,c), (a,d)\}$ is.....	A. A function B. Not a function C. Range D. Domain
79	By definition, which of the following is a set?	A. $\{a,b,c,d\}$ B. $\{1,2,3,2\}$ C. $\{l,m,n,o\}$ D. $\{0,1,2,3,1\}$
80	Which of the following is true?	A. $W \subseteq N$ B. $Z \subseteq W$ C. $N \subseteq P$ D. $P \subseteq W$
81	$N \cap W =$ .....	A. $\emptyset$ B. $\{\emptyset\}$ C. $N$ D. $W$
82	$N \cup W =$ .....	A. $\emptyset$ B. $\{\emptyset\}$ C. $N$ D. $W$
83	$W - N =$ .....	A. $\emptyset$ B. $\{\emptyset\}$ C. $N$ D. $W$

84	$O \cap E = \dots\dots\dots$	A. $\emptyset$ B. O C. E D. Z
85	$O \cup E = \dots\dots\dots$	A. $\emptyset$ B. O C. E D. Z
86	$E - O = \dots\dots\dots$	A. $\emptyset$ B. O C. E D. Z
87	$O - E = \dots\dots\dots$	A. $\emptyset$ B. O C. E D. Z
88	Which of the following is complete description of Real numbers?	A. $N \cup W = R$ B. $O \cup E = R$ C. $P \cup Q = R$ D. $Q \cup Q' = R$
89	If $x \in A$ and $x \in B$ , then $\{x\}$ is equal to .	A. $A - B$ B. $A \cup B$ C. $A \cap B$ D. $B \cup A$
90	If $x \subseteq A$ and $x \notin b$ , then $\{x\}$ is equal to.....	A. $A - B$ B. $B - A$ C. $A \cap B$ D. $A \cup B$
91	If $x \in U$ and $x \notin A$ , then $\{x\}$ is equal to .....	A. $U \cup A$ B. $A \cup U$ C. $\emptyset \cup A$ D. $A - U$
92	Which of the following is De-Morgan's law?	A. $(A \cup B) \cup C = A \cup (B \cup C)$ B. $(A \cap B) \cup C = A \cup B \cup C$ C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
93	Which of the following is associative law of union?	A. $A \cup (B \cup C) = (A \cup B) \cup C$ B. $A \cap (B \cap C) = (A \cap B) \cap C$ C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
94	Which of the following is associative law of Intersection?	A. $A \cup (B \cup C) = (A \cup B) \cup C$ B. $A \cap (B \cap C) = (A \cap B) \cap C$ C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
95	Which of the following is distributive property of union over intersection?	A. $A \cup (B \cup C) = A \cup (B \cup C)$ B. $A \cap (B \cap C) = (A \cap B) \cap C$ C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
96	Which of the following is distributive property intersection over union?	A. $A \cup (B \cup C) = A \cup (B \cup C)$ B. $A \cap (B \cap C) = (A \cap B) \cap C$ C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
97	Which of the following is commutative law?	A. $A \cup (B \cup C) = (A \cup B) \cup C$ B. $A \cap (B \cap C) = (A \cap B) \cap C$ C. $A \cup B = B \cup A$ D. $(A \cup B) \cup C = A \cup B \cup C$
98	If two sets have some elements common but not all are called..... sets	A. Sub B. OVERLAPPING C. Disjoint D. Super
99	If set A has all its elements common with set B then set A is called.....set.	A. Sub B. Overlapping C. Disjoint D. Super
100	A and $A^c$ are.....Set.	A. Universal B. Overlapping C. Disjoint D. Super
101	If union and intersection of two sets are equal then sets are.....sets.	A. Disjoint B. Overlapping C. Equal

		D. Super
102	If A is subset of U, then $(A^c)^c =$ .....	A. A B. $A^{<sup>c</sup>}$ C. $U^{<sup>c</sup>}$ D. $\emptyset$
103	A set $Q = \{a/b \mid a, b \in \mathbb{Z} \wedge b \neq 0\}$ is called a set of.	A. Whole numbers B. Natural number C. Irrational numbers D. Rational numbers
104	A grouped frequency table is also called.....	A. Data B. Frequency distribution C. Frequency polygon D. Histogram
105	A histogram is a set of adjacent.....	A. Squares B. Rectangles C. Circles D. Dots
106	A frequency polygon is a many side.....	A. Closed figure B. Rectangle C. Square D. Circles
107	A cumulative frequency table is also called.....	A. Frequency distribution B. Data C. Less then cumulative frequency distribution D. Histogram
108	In a cumulative frequency polygon freqncies are plotted against.	A. Midpoints B. Upper class boundaries C. Class limits D. Frequency
109	Arithmetic means is a measure that determines a value of the variable under study by dividing the sum of all values of the variable by their...	A. Number B. Group C. Denominator D. Numerator
110	a deviation is defined as a difference of any value of the variable from a.....	A. Constant B. Histogram C. sum D. Frequency
111	A data in the form of frequency distribution is called.....	A. Grouped data B. Ungrouped data C. Histogram D. Dispersion
112	Mean of a variable with similar observations say constant k is.....	A. Negative B. K- itself C. zero D. one
113	Mean is affected by change in .....	A. Place B. Scale C. Rate D. None of these
114	Sum of the deviations of the variable x from its mean is alwyas....	A. Zero B. One C. Same D. Negative
115	The nth positive root of the product of the $x_1, x_2, x_3, \dots, x_n$ observation is called.	A. Mode B. Mean C. Geometric mean D. Median
116	The value obtained by reciprocating the mean of the reciprocal of $x_1, x_2, x_3, \dots, x_n$ observation is called.....	A. Geometric mean B. Median C. Harmonic mean D. S.D
117	The most frequently occurring observation in a data set is called.	A. Mode B. Median C. Harmonic mean D. Mean
118	The measure which determines the middlemost observation in a data set is called.....	A. Median B. Mode C. Mean D. Variance
	The observation that divide a data set into four	A. Decites B. Quartiles

119	The observation that divide a data set into four equal part, are called.	B. Quartiles C. Percentiles D. Mode
120	The spread or scatierness of observations in a data set is called.	A. Average B. Dispersion C. Central tendency D. Quartile
121	The measures that are used to determine the degree or extent of variation in a data set are called measures of.....	A. Dispersion B. Central tendency C. Average D. Quartile
122	The extent of variation between two extreme observations of a data set is measured by.....	A. Average B. Range C. Quartiles D. Mode
123	The mean of the squared deviations of $x_1$ , ( $i = 1, 2, \dots, n$ ) observations from their arithmetic mean is called.....	A. Variance B. Standard deviation C. Range D. Mode
124	The positive square coot of mean of the squared deviations of $x_1$ ( $i = 1, 2, \dots, n$ ) observation from their arithmetic mean is called.	A. Harmonic mean B. Range C. S.D D. Variance
125	The size of class interval (6-10) is.	A. 4 B. 5 C. 8 D. 10
126	The arrangement of data is necessary to find the value of.	A. Mean B. Median C. Mode D. Range
127	The class having maximum frequency is called..... class.	A. Model B. Median C. Lower D. Upper
128	During frequency distribution number of groups should be between.....	A. 5 and 10 B. 10 and 15 C. 10 and 20 D. 5 and 15
129	The concept of antilogarithm is used to find the value of.....	A. A.M. B. G.M. C. H.M D. Mode
130	Variance is denoted by.....	A. V B. S C. $S^2$ D. X
131	Standard deviation is denoted by	A. x B. S C. $S^2$ D. $X^2$
132	On the basic of types of variable of data, the types of frequency distribution are.	A. 2 B. 3 C. 4 D. 5
133	In class (10-19) , upper class limit is.	A. 10 B. 19 C. 29 D. 14.5
134	In class (30-39), lower class limit is....	A. 39 B. 9 C. 30 D. 34.5
135	In class (20-29), Midpoint or class mark is.....	A. 20.5 B. 24.5 C. 29 D. 49
136	Types of measures of central tendency are.....	A. 3 B. 4 C. 5 D. 6



137	median from the data 82,93,86,92 and 79 is.....	A. 82 B. 86 C. 92 D. 93
138	Median from the data 2.3,2.7,2.5,3.1 and 1.9 is.....	A. 2.3 B. 2.5 C. 2.7 D. 2.9
139	Mode from the following data ,4.4,5.5,6.6,7.7,8.8,6.5,6.5,7 is.....	A. 4 B. 5 C. 5.6 D. 5.7
140	Geometric mean of 2,4,8 is.....	A. 2 B. 4 C. 8 D. 3
141	Harmonic mean for 1,2,5,8,4 is.....	A. 6.08 B. 5.08 C. 7.08 D. 4.08
142	Range for the data 110,109,84,89,77, 104,74,97,49,59,103,62 is.....	A. 41 B. 51 C. 61 D. 71
143	The standard deviation is 6 then its variance is.....	A. $\sqrt{6}$ B. 36 C. 3 D. 6
144	Arithmetic mean of 34,34,34,34,34,34 is.	A. 0 B. 341 C. 6 D. 170
145	Types of dispersion are.....	A. 4 B. 5 C. 6 D. 8
146	Rang =.....	A. $X_m + X_o$ B. $X_m - X_o$ C. $X_m / X_o$ D. $X_o / X_m$
147	$\sum [(x_i) - \bar{x}] =$ .....	A. 0 B. 1 C. -1 D. 2
148	The union of two noncollinear rays. which have common endpoint is called	A. An angle B. A degree C. A minute D. A raian
149	The system of measurement in which the angle is measured in radian is called.	A. CGS system B. Sexagesimal system C. Circular system D. MSK sytem
150	$20^\circ =$ .....	A. $360^\circ$ B. $630^\circ$ C. $1200^\circ$ D. $3600^\circ$
151	$3\pi/4$ radians =.....	A. $115^\circ$ B. $135^\circ$ C. $150^\circ$ D. $30^\circ$
152	If $\tan\theta = \sqrt{3}$ . then $\theta$ is equal to .....	A. $90^\circ$ B. $45^\circ$ C. $60^\circ$ D. $30^\circ$
153	$\sec^2\theta =$ .....	A. $1 - \sin^2\theta$ B. $1 + \tan^2\theta$ C. $1 + \cos^2\theta$ D. $1 - \tan^2\theta$

154	$1/1 + \sin\theta + 1/1 - \sin\theta$	<p>A. <math>\frac{2}{\sec^2\theta}</math>  B. <math>2 \cos^2\theta</math>  C. <math>\sec^2\theta</math>  D. <math>\cos\theta</math></p>
155	$\frac{1}{2} \operatorname{cosec} 45^\circ$	<p>A. <math>\frac{1}{2}\sqrt{2}</math>  B. <math>\frac{1}{\sqrt{2}}</math>  C. <math>\sqrt{2}</math>  D. <math>\frac{\sqrt{3}}{2}</math></p>
156	$\sin\theta \cos\theta = \dots\dots\dots$	<p>A. <math>\sin\theta</math>  B. <math>\frac{1}{\cos\theta}</math>  C. <math>\frac{1}{\sin\theta}</math>  D. <math>\sin\theta/\cos\theta</math></p>
157	$\operatorname{cosec}^2\theta - \cot^2\theta = \dots\dots\dots$	<p>A. -1  B. 1  C. 0  D. <math>\tan\theta</math></p>
158	In degree measurement, $1^\circ$ is equal to:	<p>A. <math>1^\circ</math>  B. <math>60^\circ</math>  C. <math>90^\circ</math>  D. <math>360^\circ</math></p>
159	In degree measurement, $1'$ is equal to:	<p>A. <math>1^\circ</math>  B. <math>60^\circ</math>  C. <math>90^\circ</math>  D. <math>360^\circ</math></p>
160	How many right angles are there in 360 degree?	<p>A. Two  B. Four  C. Six  D. Eight</p>
161	If 'r' is the radius of a circle, then its circumference is.	<p>A. <math>\pi/2r</math>  B. <math>\pi r</math>  C. <math>2\pi r</math>  D. <math>4\pi r</math></p>
162	The radian measure of an angle that form a complete circle is.	<p>A. <math>\pi/2</math>  B. <math>\pi</math>  C. <math>2\pi</math>  D. <math>4\pi</math></p>
163	$2\pi$ radian = .....	<p>A. <math>0^\circ</math>  B. <math>90^\circ</math>  C. <math>180^\circ</math>  D. <math>360^\circ</math></p>
164	$\pi$ radians = .....	<p>A. <math>0^\circ</math>  B. <math>90^\circ</math>  C. <math>180^\circ</math>  D. <math>360^\circ</math></p>
165	$1^\circ = \dots\dots\dots$	<p>A. <math>180\pi</math> radian  B. <math>\pi</math> radian  C. <math>\pi/180</math> radian  D. <math>180/\pi</math> radian</p>
166	$\pi/2$ radians = .....	<p>A. <math>30^\circ</math>  B. <math>45^\circ</math>  C. <math>60^\circ</math>  D. <math>90^\circ</math></p>
167	$\pi/3$ radians = .....	<p>A. <math>30^\circ</math>  B. <math>45^\circ</math>  C. <math>60^\circ</math>  D. <math>90^\circ</math></p>
168	$\pi/4$ radians = .....	<p>A. <math>30^\circ</math>  B. <math>60^\circ</math>  C. <math>45^\circ</math>  D. <math>90^\circ</math></p>
169	$\pi/6$ radians = .....	<p>A. <math>30^\circ</math>  B. <math>60^\circ</math>  C. <math>45^\circ</math>  D. <math>90^\circ</math></p>
170	$3\pi/2$ radians = .....	<p>A. <math>90^\circ</math>  B. <math>180^\circ</math>  C. <math>270^\circ</math></p>

		D. $360^{\circ}$
171	$1^{\circ} = \dots\dots\dots$	A. 0.0175 radians B. 0.175 radians C. 1.75 radians D. 175 radians
172	A part of circumference of a circle is called.	A. Radians B. Chord C. Sector D. Arc
173	Formula of arc length is.	A. $l=r\theta$ B. $r=l\theta$ C. $\theta =lr$ D. $l=r/\theta$
174	$1/\sin\theta = \dots\dots\dots$	A. $\cos\theta$ B. $\sec\theta$ C. $\operatorname{cosec}\theta$ D. $\cot\theta$
175	$1/\cos\theta = \dots\dots\dots$	A. $\sin\theta$ B. $\sec\theta$ C. $\operatorname{cosec}\theta$ D. $\cos\theta$
176	$1/\tan\theta = \dots\dots\dots$	A. $\tan\theta$ B. $\sec\theta$ C. $\operatorname{cosec}\theta$ D. $\cot\theta$
177	$\operatorname{cosec} 45^{\circ} = \dots\dots\dots$	A. 1 B. $\sqrt{2}$ C. $1/\sqrt{2}$ D. 0
178	$\sec 45^{\circ} = \dots\dots\dots$	A. 1 B. $\sqrt{2}$ C. $1/\sqrt{2}$ D. 0
179	$\cot 45^{\circ} = \dots\dots\dots$	A. 1 B. $\sqrt{2}$ C. $1/\sqrt{2}$ D. 0
180	$\sin 30^{\circ} = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. 2 D. $2/\sqrt{3}$
181	$\cos 30^{\circ} = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. 2 D. $2/\sqrt{3}$
182	$\tan 30^{\circ} = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. $\sqrt{3}$ D. $1/\sqrt{3}$
183	$\cot 30^{\circ} = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. $\sqrt{3}$ D. $1/\sqrt{3}$
184	$\sec 30^{\circ} = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. 2 D. $2/\sqrt{3}$
185	$\operatorname{cosec} 30^{\circ} = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. 2 D. $2/\sqrt{3}$
186	$\sin 60^{\circ} = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. 2 D. $2/\sqrt{3}$
187	$\cos 60^{\circ} = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. 2 D. $2/\sqrt{3}$
188	$\tan 60^{\circ} = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$

188	$\tan 60^\circ = \dots\dots\dots$	C. $\sqrt{3}$ D. $1/\sqrt{3}$
189	$\cot 60^\circ = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. $\sqrt{3}$ D. $1/\sqrt{3}$
190	$\operatorname{cosec} 60^\circ = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. 2 D. $2/\sqrt{3}$
191	In which quadrant only $\sin\theta$ and $\cos\theta$ are positive?	A. I B. II C. III D. IV
192	In which quadrant only $\cos\theta$ and $\sec\theta$ are positive?	A. I B. II C. III D. IV
193	In which quadrant only $\tan\theta$ and $\cot\theta$ are positive.	A. I B. II C. III D. IV
194	In which quadrant $\theta$ lie when $\sin\theta > 0$ , $\tan\theta < 0$ ?	A. I B. II C. III D. IV
195	In which quadrant $\theta$ lie when $\cos\theta < 0$ , $\sin\theta < 0$ ?	A. I B. II C. III D. IV
196	In which quadrant $\theta$ lie when $\sec\theta < 0$ , $\sin\theta < 0$ ?	A. I B. II C. III D. IV
197	In which quadrant $\theta$ lie when $\cos\theta < 0$ , $\tan\theta < 0$ ?	A. I B. II C. III D. IV
198	In which quadrant $\theta$ lie when $\cot\theta < 0$ , $\cos\theta < 0$ ?	A. I B. II C. III D. IV
199	In which quadrant $\theta$ lie when $\sin\theta < 0$ , $\sec\theta < 0$ ?	A. I B. II C. III D. IV
200	$\sin^2\theta + \cos^2\theta = \dots\dots\dots$	A. $\tan^2\theta$ B. $\cos^2\theta$ C. 1 D. 0
201	$1 + \tan^2\theta = \dots\dots\dots$	A. $\sin^2\theta$ B. $\cos^2\theta$ C. $\operatorname{cosec}^2\theta$ D. $\sec^2\theta$
202	$1 + \cot^2\theta = \dots\dots\dots$	A. $\sin^2\theta$ B. $\cos^2\theta$ C. $\operatorname{cosec}^2\theta$ D. $\sec^2\theta$
203	In which quadrant all trigonometric ratios are positive?	A. I B. II C. III D. IV
204	Fundamental trigonometric ratios are.	A. 3 B. 4 C. 5 D. 6
205	Which is one of the quadrantal angles?	A. $30^\circ$ B. $45^\circ$ C. $60^\circ$ D. $90^\circ$

A. 1

206	$\sin\theta, \operatorname{cosec}\theta = \dots\dots\dots$	B. 0 C. $\sin\theta$ D. $\cos\theta$
207	$\cos\theta, \sec\theta = \dots\dots\dots$	A. 1 B. $\tan\theta$ C. 0 D. $\cos\theta$
208	$\tan\theta, \cot\theta = \dots\dots\dots$	A. $\sin\theta$ B. $\sec\theta$ C. 1 D. 0
209	Angles between $180^\circ$ and $270^\circ$ are to which quadrant?	A. I B. II C. III D. IV
210	Angles between $0^\circ$ and $90^\circ$ are to which quadrant?	A. I B. II C. III D. IV
211	$\sin(-310^\circ) = \dots\dots\dots$	A. $\sin 310^\circ$ B. $-\sin 310^\circ$ C. $\cos 310^\circ$ D. $\tan 310^\circ$
212	$\sec(-60^\circ) = \dots\dots\dots$	A. $-\sec 60^\circ$ B. $\sec 60^\circ$ C. $\cos 60^\circ$ D. $\cot 60^\circ$
213	The number of elements in the power set of $\{1,2,3,4\}$ .	A. 4 B. 8 C. 16 D. 0
214	The number of elements of the power set $\{a,b\}$ are.	A. 1 B. 2 C. 3 D. 4
215	Collection of distinct objects.	A. Subset B. Power set C. Set D. None of the
216	A set containing no element is called.	A. subset B. Empty set C. Singleton set D. Super set
217	A set having only one member.	A. Empty set B. Power set C. Singleton set D. Sub set
218	Power set of empty set.	A. $\emptyset$ B. $\{a\}$ C. $\{\emptyset, \{a\}\}$ D. $\{\emptyset\}$
219	Number of elements in power set of $\{1,2,3\}$	A. 4 B. 6 C. 8 D. 9
220	If $A \subseteq B$ then $A \cup B = \dots\dots\dots$	A. A B. B C. $\emptyset$ D. None of these
221	If $A \subseteq B$ the $A \cap B = \dots\dots\dots$	A. A B. B C. $\emptyset$ D. $A \cup B$
222	$A \subseteq B$ then $A - B = \dots\dots\dots$	A. A B. B C. $\emptyset$ D. $B - A$
223	$(A \cup B) \cup C = \dots\dots\dots$	A. $A \cap (B \cup C)$ B. $(A \cup B) \cap C$ C. $A \cup (B \cup C)$ D. $A \cap (B \cap C)$

224	$A \cup (B \cap C) =$ _____	<p>A. <math>(A \cup B) \cap (A \cup C)</math>  B. <math>A \cap (B \cap C)</math>  C. <math>(A \cap B) \cup (A \cap C)</math>  D. <math>A \cup (B \cup C)</math></p>
225	If A and B are two disjoint sets then $A \cup B =$ _____	<p>A. A  B. B  C. <math>\emptyset</math>  D. <math>B \cup A</math></p>
226	If set A has 3 elements and B has 4 then $A \times B$ has _____ elements.	<p>A. 3  B. 4  C. 12  D. 7</p>
227	If set A has 3 and B has 2 elements then number of binary relations of $A \times B$ .	<p>A. <math>2^{2 \times 2}</math>  B. <math>2^{3 \times 2}</math>  C. <math>2^{6}</math>  D. <math>2^{3 \times 3}</math></p>
228	If $R = \{(0,2), (2,3), (3,4)\}$ then Dom (R) is:	<p>A. {0,3,4}  B. {0,2,3}  C. {0,2,4}  D. {2,3,4}</p>
229	The Range of R is, if $R = \{(1,3), (2,2), (3,1), (4,4)\}$ .	<p>A. {1,2,4}  B. {3,2,4}  C. {1,2,3,4}  D. {1,3,4}</p>
230	Point (-1,4) lies in quadrant:	<p>A. I  B. II  C. III  D. IV</p>
231	The relation $R = \{(1,2), (2,3), (3,3), (3,4)\}$ is:	<p>A. Not a function  B. Onto function  C. One-One function  D. Into function</p>
232	The mode in the data 1,3,5,3,7,9	<p>A. 1  B. 3  C. 5  D. 7</p>
233	A group frequency table is called.	<p>A. Data  B. Frequency distribution  C. Frequency polygon  D. None of these</p>
234	A histogram is a set of adjacent.	<p>A. Squares  B. Rectangles  C. Circles  D. Closed figures</p>
235	A frequency polygon is a many sides.	<p>A. Closed figure  B. Rectangle  C. Circle  D. Triangle</p>
236	A cumulative frequency table is called.	<p>A. Frequency distribution  B. Data  C. Less than frequency distribution  D. None of these</p>
237	A deviation is defined as a difference of any value of the variable from a.	<p>A. Constant  B. Histogram  C. Sum  D. Product</p>
238	A data in the form of frequency distribution is called.	<p>A. Grouped data  B. Ungroup data  C. Same  D. None of these</p>
239	Mean is affected by change in _____:	<p>A. Place  B. Scale  C. Rate  D. Origin</p>
240	Sum of deviations of the variable X from its mean is always _____	<p>A. Zero  B. One  C. Same  D. None</p>
241	The most frequent occurring observation in a set of data is called.	<p>A. Mode  B. Median  C. Harmonic mean  D. Mean</p>

242	The measure which determines the middle most observation in a data set is called.	A. Median B. Mode C. Mean D. Rang
243	The observation that divide a data set into four equal parts are called.	A. Declies B. Quartiles C. Percentiles D. Harmonic mean
244	The spread of observations in a data set is called.	A. Average B. Dispersion C. Central tendency D. Mean
245	The extent of variation between two extreme observations in a data is called.	A. Average B. Range C. Quartiles D. None of these
246	The positive square root of mean of the squared deviation of $X_i (i=1,2,3,\dots,n)$ observations from their arithmetic mean is called.	A. Harmonic mean B. Range C. Standard deviation D. Variance
247	The mean of the squared deviations of X observations from their arithmetic mean is called.	A. Variance B. Standard deviation C. Range D. Harmonic mean
248	$3\pi/2$ Radian = _____	A. $30^\circ$ B. $135^\circ$ C. $180^\circ$ D. $270^\circ$
249	$\cot 60^\circ =$ _____	A. $1/\sqrt{3}$ B. $\sqrt{3}$ C. $1/2$ D. 2
250	$\sin^2\theta + \cos^2\theta =$ _____:	A. $\sin\theta$ B. $\cos\theta$ C. 1 D. 2
251	The union of two noncollinear rays, which have common end point is called.	A. A Radian B. A Minute C. A degree D. An angle
252	The system of measurement in which angle is measured in radian is called.	A. C.G.S System B. Sexagesimal system C. M.K.S. System D. circular system
253	$20^\circ =$ _____	A. $360'$ B. $630'$ C. $1200'$ D. $360'$
254	$3\pi/4$ radian =	A. $115^\circ$ B. $135^\circ$ C. $150^\circ$ D. $30^\circ$
255	If $\tan\theta = \sqrt{3}$ then $\theta$ is equal to .	A. $30^\circ$ B. $45^\circ$ C. $60^\circ$ D. $90^\circ$
256	$\sec^2\theta$ _____	A. $1 - \sin^2\theta$ B. $1 - \tan^2\theta$ C. $1 + \cos^2\theta$ D. $1 - \tan^2\theta$
257	$1/(1+\sin\theta) + 1/(1-\sin\theta)$	A. $2 \sec^2\theta$ B. $2 \cos^2\theta$ C. $\sec^2\theta$ D. $\cos\theta$
258	$1/2 \operatorname{Cosec} 45^\circ =$ _____	A. $1/2\sqrt{2}$ B. $1/\sqrt{2}$ C. $\sqrt{2}$ D. $\sqrt{3}/2$
259	$\sec\theta \cot\theta =$	A. $\sin\theta$ B. $1/\sin\theta$ C. $\cos\theta$ D. $1/\cos\theta$







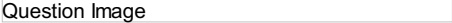



259	$\frac{1}{\cos \theta} - \sec \theta =$ _____	C. $1/\cos \theta$ D. $\sin \theta / \cos \theta$
260	$\operatorname{Cosec}^2 \theta - \cot^2 \theta =$ _____	A. -1 B. 1 C. 0 D. $\tan \theta$
261	the set $\{0, \pm 1, \pm 2, \pm 3, \dots\}$ is:	A. Set of natural numbers B. Set of whole numbers C. Set of prime numbers D. Set of integers
262	If $R = \{(a, 2), (b, 3), (c, 3)\}$ , then $\operatorname{Dom} R =$ _____	A. $\{1, 2\}$ B. $\{1, 2, 3\}$ C. $\{a, b, c\}$ D. $\{a, c\}$
263	If $B = \{1, 2, 100\}$ and $C = \{2, 100\}$ , then $B \cap C =$ _____	A. $\{1, 2\}$ B. $\{1, 2, 100\}$ C. $\{2\}$ D. $\{2, 1\}$
264	If $A = \{0, 1, 2\}$ , $B = \{2, 3, 4, 5\}$ , then $A \cup B$ are:	A. Empty sets B. Equal sets C. Overlapping sets D. Disjoint set
265	If $\{x   x = p/q, q \neq 0, p, q \in \mathbb{Z}\}$ then this is a _____	A. Set of even numbers B. Set of rational number C. Set of irrational numbers D. Set of integers
266	$U' =$ _____	A. U B. A C. $A'$ D. $\phi$
267	If $A = \{1, 2, 3\}$ , $B = \{4, 5\}$ and $R = \{(1, 4), (2, 5), (3, 4)\}$ then R is _____	A. One - one function from A to B B. A function A to A C. Not a function D. An onto function from A to B
268	If A has two elements and B has 3 elements, then number of binary relations in $A \times B$ is _____	A. $2 \times 3$ B. $2^{2 \times 3}$ C. $2^6$ D. $2^2$
269	If f is a function from A to B, then f is one - one function if:	A. $\operatorname{Range} f \neq A$ B. $\operatorname{Range} f = B$ C. $\operatorname{Dom} f = A$ D. Second element of all ordered pairs contained in f is not repeated.
270	If f is a function from A to B, then f is onto function if:	A. $\operatorname{Range} f \neq A$ B. $\operatorname{Range} f = B$ C. $\operatorname{Dom} f = A$ D. Second element of all ordered pairs contained in f is not repeated.
271	If $R = \{(0, 0), (8, 2), (10, 3), (14, 12)\}$ , then $\operatorname{Dom} R =$ _____	A. $\{0, 8, 10, 14\}$ B. $\{0, 2, 3, 12\}$ C. $\{8, 10, 4\}$ D. $\{0, 10\}$
272	The difference between upper limit of two consecutive classes in a frequency table is called:	A. Class limit B. Class interval C. Class mark D. All of these
273	A cumulative frequency curve is also called:	A. Histogram B. Pie chart C. Ogive D. Frequency polygon
274	The number of time a value appears on a set of data is called:	A. Frequency B. Average C. Mode D. Median
275	A value best representing a set of data is called:	A. Average B. Variance C. Standard deviation D. None of these
276	In a class of frequency distribution 14 - 18, the 18 is:	A. Upper class limit B. Lower class limit C. Class interval D. All of these



277	The nth root of product of 'n' number of values is called:	A. Arithmetic mean B. Geometric mean C. Harmonic mean D. Standard derivation
278	In a set of data 63,65,66,67,69, median is:	A. 63 B. 66 C. 67 D. 69
279	In a set of data 41,43,47,51,57,52 ,59 median is:	A. 51 B. 47 C. 52 D. None of these
280	The measure of central tendency which is not affected by extreme values is called:	A. Median B. Arithmetic mean C. Geometric mean D. None of these
281	The reciprocal of Arithmetic mean of reciprocal of values is called:	A. Average B. Harmonic mean C. Geometric mean D. None of these
282	In the given set of data 5,7,7,5,3,7,2,8,2 mode is:	A. 9 B. 5 C. 2 D. 7
283	In the given set of data 5,5,5,5,5,5 the standard deviation is:	A. 5 B. 0 C. 7 D. None of these
284	The square of standard deviation :	A. Standard deviation B. Range C. Dispersion D. Variance
285	In a set of data, the difference between highest value and lowest value is called:	A. Standard deviation B. Range C. Dispersion D. All of these
286	The average pocket money of 30 students is Rs.20/- , The total amount in the class is:	A. Rs.20/- B. Rs.30/- C. Rs.300/- D. Rs.600/-
287	The sum of 30 observations is 1500. Its average will be:	A. 1500 B. 150 C. 15 D. None of these
288	In a set of observation. 5,5,7,9,9,9,11,11,11,11,12,12 the mode is:	A. 9 B. 11 C. Both 9 and 11 D. None of these
289	To find the public opinion or trend the most suitable statistics is:	A. Mean B. Median C. Mode D. Variance
290	In a unit circle, $\cos\theta =$ _____	A. y B. x C. y/x D. None of these
291	1 minute = _____ degree	A. 1/60 B. 60 C. 1/3600 D. 3600
292	$\tan 90^\circ =$ _____	A. 1 B. 0 C. Undefined D. None of these
293	$\cot 45^\circ =$ _____	A. 1/2 B. -1/2 C. 1/√2 D. 1
294	If an object is above the level of observation then angle formed between the horizontal line and observer's line of sight is called:	A. Angle of dispersion B. Angle of elevation C. Obtuse angle D. None of these



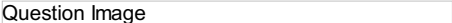

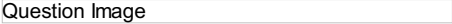


295	$\cot \theta =$ _____	A. $\sin \theta / \cos \theta$ B. $1 / \cos \theta$ C. $\cos \theta / \sin \theta$ D. $1 / \sin \theta$
296	$\sin(-350^\circ)$ lies in _____.	A. 1st quadrant B. 2nd quadrant C. 3rd quadrant D. 4th quadrant
297	$45^\circ =$ _____ radian.	A. $\pi/3$ B. $\pi/4$ C. $\pi/6$ D. $\pi/2$
298	$(A \cap B)' =$ _____	A. $A' \cup B'$ B. $A' \cap B'$ C. $A \cap B$ D. $A \cup B$
299	$A' =$ _____	A. $\{x   x \in U' \}$ B. $\{x   x \in U \}$ C. $\{x   x \in A' \}$ D. $\{x   x \in A \}$
300	$1 + \tan^2 \theta =$ _____	A. $\sin^2 \theta$ B. $\cos^2 \theta$ C. $\operatorname{cosec}^2 \theta$ D. $\sec^2 \theta$
301	If $\tan \theta = 1$ then $\sin \theta =$ _____ when $\theta$ lies in 3rd quadrant.	A. $1/2$ B. $-1/2$ C. $-1/\sqrt{2}$ D. $1/\sqrt{2}$
302	Standard form of quadratic equation is:	
303	The number of terms in a standard quadratic equation $ax^2 + bx + c = 0$ is:	A. 1 B. 2 C. 3 D. 4
304	The number of methods to solve a quadratic equation is:	A. 1 B. 2 C. 3 D. 4
305	The quadratic formula is:	
306	Two linear factors $x^2 - 15x + 56$ are:	A. $(x-7)$ and $(x+8)$ B. $(x+7)$ and $(x-8)$ C. $(x-7)$ and $(x-8)$ D. $(x+7)$ and $(x+8)$
307	Question Image	A. Radical equation B. Reciprocal equation C. Exponential equation D. None of these
308	An equation of the type $3^x + 3^{2-x} + 6 = 0$ is called a/an:	A. Reciprocal equation B. Radical equation C. Exponential equation D. None of these
309	The solution set of equation $4x^2 - 16 = 0$ is:	B. $\{4\}$
310	An equation of the form $2x^4 - 3x^3 + 7x^2 - 3x + 2 = 0$ is	A. Reciprocal equation B. Radicalequation

310	called a/an:	C. Exponential equation D. None of these
311	Question Image	
312	Question Image	
313	Roots of the equation $4x^2-5x+2=0$ are:	A. Irrational B. Imaginary C. Rational D. None of these
314	Cube roots of -1 are:	
315	Sum of the cube roots of unity is:	A. 0 B. 1 C. -1 D. 3
316	Product of cube roots of unity is:	A. 0 B. 1 C. -1 D. 3
317	If $b^2-4ac<0$ , then the roots of $ax^2+bx+c=0$ are:	A. Irrational B. Rational C. Imaginary D. None of these
318	If $b^2-4ac > 0$ , but not a perfect square then roots of $ax^2+bx+c=0$ are:	A. Imaginary B. Rational C. Irrational D. None of these
319	Question Image	
320	Question Image	
321	Two square roots of unity are:	A. 1, -1
322	Roots of the equation $4x^2-4x+1=0$ are:	A. Real, equal B. Real, unequal C. Imaginary D. Irrational
323	Question Image	
324	Question Image	A. -2 B. 2 C. 4 D. -4
325	The nature of the roots of equation $ax^2+bx+c=0$ , is determined by:	A. Sum of the roots B. Product of the roots C. Synthetic division D. Discriminant
326	The Discriminant of $ax^2+bx+c=0$ is:	A. $b^2-4ac$ B. $b^2+4ac$ C. $-b^2+4ac$ D. $-b^2-4ac$
327	In a ratio a:b, a is called:	A. Relation B. Antecedent C. Consequent D. None of these
328	In a ratio x:y, y is called:	A. Relation B. Antecedent C. Consequent D. None of these
329	In a proportion a:b::c:d, a and d are called:	A. Means B. Extremes C. Third proportional D. None of these
330	In a proportion a : b :: c : d, b and c are called:	A. Means B. Extremes C. Fourth proportional D. None of these
331	In continued proportion a:b = b:c, $ac = b^2$ , b is said to be _____ proportional between a and c:	A. Third B. Fourth C. Means D. None of these

332	In continued proportional $a:b = b:c$ , $c$ is said to be _____ proportional to $a$ and $b$ :	A. Third B. Fourth C. Means D. None of these
333	Find $x$ in proportion $4:x::5:15$	D. 12
334		A. $u = v^2$ B. $u = kv^2$ C. $uv^2 = k$ D. $uv^2 = 1$
335		
336		A. $u = wk^2$ B. $u = vk^2$ C. $u = w^2k$ D. $u = v^2k$
337	The third proportional of $x^2$ and $y^2$ is:	B. $x^2y^2$
338	The fourth proportional $w$ of $x : y :: v : w$ is:	C. $xyv$
339	If $a:b = x:y$ , then alternando property is:	
340	If $a:b = x:y$ , then invertendo property is:	
341		
342	The identity $(5x + 4)^2 = 25x^2 + 40x + 16$ is true for:	A. One value of $x$ B. Two value of $x$ C. All values of $x$ D. None of these
343		A. An identity B. An equation C. A fraction D. None of these
344	A fraction in which the degree of the numerator is greater or equal to the degree of denominator is called:	A. A proper fraction B. An improper fraction C. An equation D. Algebraic relation
345	A fraction in which the degree of numerator is less than the degree of the denominator is called:	A. An equation B. An improper fraction C. An identity D. A proper fraction
346		A. An improper fraction B. An equation C. A proper fraction D. None of these
347	$(x+3)^2 = x^2 + 6x + 9$ is:	A. A linear equation B. An equation C. An identity D. None of these
348		A. A proper fraction B. An improper fraction C. An identity D. An constant term
349		
350		
351		
352	A collection of well-defined distinct object is called:	A. Subset B. Power set C. Set D. None of these
353	The different number of ways to describe a set are:	A. 1 B. 2 C. 3 D. 4
354	A set with no element is called:	A. Subset B. Empty set C. Singleton set D. Super set
355	The set having only one element is called:	A. Null set B. Power set C. Singleton set

C. Singleton set  
D. Subset

356	Power set of an empty set is:	B. {a}
357	The number of elements in power set {1,2,3}:	A. 4 B. 6 C. 8 D. 9
358	If A and B are disjoint sets then $A \cup B$ is equal to:	A. A B. B D. $A \cup B$
359	If number of elements in set A is 3 and in set B is 4 then number of elements in $A \times B$ is:	A. 3 B. 4 C. 12 D. 7
360	If number of elements in set, A is 3 and in set B is 2 then number of binary relations in $A \times B$ is:	A. $2^3$ B. $2^6$ C. $2^8$ D. $2^2$
361	The domain of $R = \{(0, 2), (2, 3), (3, 3), (3, 4)\}$ is:	A. {0, 3, 4} B. {0, 2, 3} C. {0, 2, 4} D. {2, 3, 4}
362	The range of $R = \{(1, 3), (2, 2), (3, 1), (4, 4)\}$ is:	A. {1, 2, 4} B. {3, 2, 4} C. {1, 2, 3, 4} D. {1, 3, 4}
363	Point (-1, 4) lies in the quadrant:	A. I B. II C. III D. IV
364	The relation $\{(1, 2), (2, 3), (3, 3), (3, 4)\}$ is:	A. Onto function B. In to function C. Not a function D. One-one function
365	A grouped frequency table is also called:	A. Data B. Frequency distribution C. Frequency Polygon
366	A histogram is a set of adjacent:	A. Squares B. Rectangles C. Circles
367	A frequency polygon is a many sided:	A. Closed figure B. Rectangle C. Square
368	A cumulative frequency table is also called:	A. Frequency distribution B. Data C. Less than cumulative frequency distribution
369	In a cumulative frequency Polygon frequencies are plotted against:	A. Mid points B. Upper class boundries C. Class limits
370	Arithmetic mean is a measure that determines a value of the variable under study by dividing the sum of all values of the variable by their:	A. Number B. Group C. Denominator
371	A Deviation is defined as a difference of any value of the variable from a:	A. Constant B. Histogram C. Sum
372	A data in the form of frequency distribution is called:	A. Grouped data B. Ungrouped data C. Histogram
373	Mean of a variable with similar observations any constant k is:	A. Negative B. k itself C. Zero
374	Mean is affected by change in:	A. Value B. Ratio C. Origin
375	Mean is affected by change in;	A. Place B. Scale C. Rate

376	Sum of the deviations of the variable "X" from its mean is always:	A. Zero B. One C. Same
377	The $n^{\text{th}}$ positive root of the product of the $x_1, x_2, x_3, \dots, x_n$ observations is called:	A. Mode B. Mean C. Geometric mean
378	The most frequent occurring observation in a data set is called:	A. Mode B. Median C. Harmonic mean
379	The measure which determines the middle-most observation in a data set is called:	A. Median B. Mode C. Mean
380	The observations that divide a data set into four equal parts are called:	A. Deciles B. Quartiles C. Percentiles
381	The spread or scatterness of observations in a data set is called:	A. Average B. Dispersion C. Central tendency
382	The measures that are used to determine the degree or extent of variation in a data set are called measures of:	A. Dispersion B. Central tendency C. Average
383	The extent of variation between two extreme observations of a data set is measured by:	A. Average B. Range C. Quartiles
384	The mean of the squared deviations of $x_i$ ( $i = 1, 2, \dots, n$ ) observations from their arithmetic mean is called:	A. Variance B. Standard deviation C. Range
385	The positive square root of mean of the squared deviations of $x_i$ ( $i = 1, 2, \dots, n$ ) observations from their arithmetic mean is called:	A. Harmonic mean B. Range C. Standard deviation
386	The union of two non-collinear rays, which have common end point is called:	A. An angle B. Degree C. A minute D. A radian
387	The system of measurement in which the angle is measured in radians is called:	A. CGS system B. Sexagesimal system C. MKS system D. Circular system
388	$20^\circ =$	A. $360'$ B. $630'$ C. $1200'$ D. $3600'$
389		A. $115'$ B. $135^\circ$ C. $150^\circ$ D. $30^\circ$
390		A. $90^\circ$ B. $45^\circ$ C. $60^\circ$ D. $30^\circ$
391		
392		
393		
394		
395		A. -1 B. 1 C. 0
396	Radii of a circle are:	A. All equal B. Double of the diameter C. All unequal D. Half of any chord
397	A chord passing through the centre of a circle is called:	A. Radius B. Diameter C. Circumference D. Secant

A Radius

398	Right bisector of the chord of a circle always passes through the:	A. Radius B. Circumference C. Centre D. Diameter
399	The circular region bounded by two radii and the corresponding arc is called:	A. Circumference of a circle B. Sector of a circle C. Diameter of a circle D. Segment of a circle
400	The distance of any point of the circle to its centre is called:	A. Radius B. Diameter C. A chord D. An arc
401	Line segment joining any point of the circle to the centre is called:	A. Circumference B. Diameter C. Radial segment D. Perimeter
402	Locus of a point in a plane equidistant from a fixed point is called:	A. Radius B. Circle C. Circumference D. Diameter
403	The symbol for a triangle is denoted by:	
404	A complete circle is divided into:	A. $90^\circ$ B. $180^\circ$ C. $270^\circ$ D. $360^\circ$
405	Through how many non collinear points, a circle can pass ?	A. One B. Two C. Three D. None
406	A line which has two points in common with a circle is called:	A. Sine of a circle B. Cosine of a circle C. Tangent of a circle D. Secant of a circle
407	A line which has only one point in common with a circle is called:	A. Sine of a circle B. Cosine of a circle C. Tangent of a circle D. Secant of a circle
408	Two tangents drawn to a circle from a point outside it are of _____ in length	A. Half B. Equal C. Double D. Triple
409	A circle has only one:	A. Secant B. Chord C. Diameter D. Centre
410	A tangent line intersects the circle at:	A. Three points B. Two points C. Single point D. No point at all
411	Tangents drawn at the ends of diameter of a circle are _____ to each other:	A. Parallel B. Non parallel C. Collinear D. Perpendicular
412	The distance between the centres of two congruent touching circles externally is:	A. Of zero length B. The radius of each circle C. The diameter of each circle D. Twice the diameter of each circle
413	A 4cm long chord subtends a central angle of $60^\circ$ . The radial segment of this circle is:	A. 1 B. 2 C. 3 D. 4
414	The length of a chord and the radial segment of a circle are congruent, the central angle made by the chord will be:	A. $30^\circ$ B. $45^\circ$ C. $60^\circ$ D. $75^\circ$
415	Out of two congruent arcs of a circle, if one arc makes a central angle of $30^\circ$ then the other arc will subtend the central angle of:	A. $15^\circ$ B. $30^\circ$ C. $45^\circ$ D. $60^\circ$
416	An arc subtends a central angle of $40^\circ$ then the	A. $20^\circ$ B. $40^\circ$

416	corresponding chord will subtend a central angle of:	C. $60^\circ$ D. $80^\circ$
417	A pair of chords of a circle subtending two congruent central angles is:	A. Congruent B. Incongruent C. Overlapping D. Parallel
418	If an arc of a circle subtends a central angle of $60^\circ$ , then the corresponding chord of the arc will make the central angle of:	A. $20^\circ$ B. $40^\circ$ C. $60^\circ$ D. $80^\circ$
419	The semi circumference, and the diameter of a circle both subtend a central angle of:	A. $90^\circ$ B. $180^\circ$ C. $270^\circ$ D. $360^\circ$
420	The chord length of a circle subtending a central angle of $180^\circ$ is always:	A. Less than radial segment B. Equal to the radial segment C. Double of the radial segment D. None of these
421	If a chord of a circle subtends a central angle of $60^\circ$ , then the length of the chord and the radial segment arc:	A. Congruent B. Incongruent C. Parallel D. Perpendicular
422	The arcs opposite to incongruent central angles of a circle are always:	A. Congruent B. Incongruent C. Parallel D. Perpendicular
423	The circumference of circle is called:	A. Chord B. Segment C. Boundary
424	A line intersecting a circle is called:	A. Tangent B. Secant C. Chord
425	The Portion of a circle between two radii and an arc is called:	A. Sector B. Segment C. Chord
426	Angle inscribed in a semi-circle is:	
427	The length of the diameter of a circle is how many times the radius of the circle:	A. 1 B. 2 C. 3
428	The tangent and radius of a circle at the point of contact are:	A. Parallel B. Not perpendicular C. Perpendicular
429	Circles having three points in common:	A. Overlapping B. Collinear C. Not coincide
430	If two circles touch each other, their centres and point of contact are:	A. Coincident B. Non-collinear C. Collinear
431	The measure of the external angles of a regular hexagon is:	
432	If the incentre and circumcentre of a triangle coincide, the triangle is:	A. An isosceles B. A right triangle C. An equilateral
433	The measure of the external angles of a regular octagon is:	
434	Tangents drawn at the end points of the diameter of a circle are:	A. Parallel B. Perpendicular C. Intersecting
435	The lengths of two transverse tangents to a pair of circles are:	A. Unequal B. Equal C. Overlapping
436	How many tangents can be drawn from a point outside the circle ?	A. 1 B. 2 C. 3
437	If the distance between the centres of two circles is equal to the sum of their radii, then the circles will:	A. Intersect B. Do not intersect C. Touch each other externally



438	If the two circles touches externally, then the distance between their centres is equal to the:	A. Difference of their radii B. Sum of their radii C. Product of their radii
439	How many common tangents can be drawn for two disjoint circles ?	A. 2 B. 3 C. 4
440	Solution set of equation $5x^2-125=0$ is:	A. {5} B. {10} C. {-5}
441	Equation $3^{2-x}+6=0$ is of type:	A. Exponential B. Radical C. Reciprocal D. Non
442	Number of terms in standard Quadratic Equation $ax^2+bx+c=0$	A. 1 B. 2 C. 3 D. 4
443	Number of ways to solve quadratic equation are:	A. 1 B. 2 C. 3 D. 4
444	An equation of the type $3^x+3^{2-x}+6=0$ is a/an _____ equation:	A. Radical B. Exponential equation C. Reciprocal D. None of these
445	Equation is $2x^4-3x^3+7x^2-3x+2=0$ called:	A. Reciprocal B. Radical C. Exponential D. None
446	Roots of following equation are: $9x^2-4x+1=0$ :	A. Real, Equal B. Real, Unequal C. Imaginary D. Irrational
447	Sum roots of $4x^2-3x+6=0$ :	
448	Question Image	
449	Question Image	
450	Question Image	
451	Product of roots of equation $5x^2+3x-9=0$ :	
452	In a proposition $a:b::c:d$ , a and d are called:	A. Means B. Extremes C. Fourth proportional D. None
453	In proportion $a:b::c:d$ , b and c are called:	A. Means B. Extremes C. Third proportional D. None of these
454	In proportion $7:4::p:8$ , $p =$ _____:	A. 14 B. $7/2$ D. -14
455	A fraction with degree of numerator less than degree of denominator:	A. Equation B. Improper C. Identify D. Proper
456	The length of the diameter of a circle is how many times the radius of circle:	A. 1 B. 2 C. 3 D. 4
457	The circumference of a circle is called:	A. Tangent B. Chord C. Boundary D. Segment
458	The symbol for a circle:	
459	Locus of a point in the plane equidistant from a fixed point is called:	A. Radius B. Circle C. Circumference D. Diameter

D. Diameter





460	Through how many non-collinear points a circle can pass ?	A. One B. Two C. Three D. Four
461	Line intersecting a circle is called:	A. Tangent B. Secant C. Chord D. Diameter
462	The tangent and radius of a circle at the point of contact are _____:	A. Parallel B. Not perpendicular C. Perpendicular D. None of these
463	How many tangents can be drawn from a point outside it ?	A. 1 B. 2 C. 3 D. 4
464	An arc subtends a central angle of $40^\circ$ then corresponding chord will subtend a central angle of _____:	A. $20^\circ$ B. $40^\circ$ C. $60^\circ$ D. $80^\circ$
465	In an arc of circle subtends a central angle $60^\circ$ , then corresponding chord will make central angle:	A. $20^\circ$ B. $40^\circ$ C. $60^\circ$ D. $80^\circ$
466	The measure of a central angle of minor arc of a circle is _____ that of the angle subtends by corresponding major arc:	A. Half B. Equal C. Double D. Triple
467	An angle inscribed in a semicircle is:	
468	_____ Common tangents can be drawn for two touching circles:	A. 2 B. 3 C. 4 D. 5
469	Quadratic equation is also known as equation of:	A. Standard form B. Polynomials C. Second degree D. Higher order
470	A second degree equation in one variable x is of the form:	A. $ax^2 + c$ B. $ax^2 + bx + c$ C. $ax + bx + c$ D. $ax^2 + b$
471	In $ax^2 + b + c$ , the co-efficient of $x^2$ is:	A. c B. b C. d D. a
472	In $ax^2 + b + c$ , the co-efficient of x is:	A. b B. d C. c D. a
473	In $ax^2 + b + c$ , the constant term is:	A. a B. b C. c D. d
474	In $ax^2 + b + c$ , if a = 0 then reduced form is:	A. $ax^2 + bx$ B. $bx + c$ C. c D. $ax^2 + c$
475	The standard form of quadratic equation is:	A. $x^2 + 6 = 7x$ B. $x^2 - 7x = 6$ C. $7x + 6 = x^2$ D. $x^2 - 7x + 6 = 0$
476	The factors of $3x^2 - 7x - 20 = 0$ are:	A. $(x-4)(3x+5)$ B. $(x+4)(3x-5)$ C. $(x-4)(3x-5)$ D. $(x+4)(3x+5)$
477	Factors of $x^2 - x - 2 = 0$ are:	A. $(x-1)(x+2)$ B. $(x-1)(x-2)$ C. $(x-1)(x-2)$ D. $(x+1)(x+2)$

478	Factors of $5x^2-30=0$ are:	A. $5x(x+6)$ B. $6x(x+5)$ C. $6x(x-5)$ D. $5x(x-6)$
479	In equation $ax^4+bx^2+c=0$ , we replace:	A. $x^{\sup{2}} = y$ B. $x = y$ C. $x^{\sup{4}} = y$ D. $x^{\sup{3}} = y$
480	If variables occurs in exponent, then such equations are called:	A. Constant equations B. Linearequations C. Exponentialequations D. Binomiaequations
481	Which of the following is a reciprocal equation ?	A. $ax^{\sup{3}}+bx^{\sup{3}}+cx+d=0$ B. $ax^{\sup{4}}-bx^{\sup{3}}+cx^{\sup{2}}-bx+a=0$ C. $ax^{\sup{4}}+bx^{\sup{3}}+cx^{\sup{2}}+dx+e=0$ D. $ax^{\sup{4}}+bx^{\sup{3}}+cx^{\sup{2}}+bx+a=0$
482	In equation $5^{1+x}+5^{1-x} = 26$ , we put:	A. $5^{\sup{2x}}=y$ B. $5^{\sup{1+x}}=y$ C. $5^{\sup{1-x}}=y$ D. $5^{\sup{x}}=y$
483	To solve $(x+a)(x+b)(x+c)(x+d) = k$ , we have:	A. $a-b=b-c$ B. $a-b=c-d$ C. $a+b=c+d$ D. $a-c=b-c$
484	An equation of the type $2^x + 64 \cdot 2^{-x} - 20 = 0$ is called:	A. Exponential equation B. Reciprocalequation C. Radicalequation D. Linearequation
485	A root of an equation, which do not satisfy the given equation is called:	A. Endogenous root B. Extraneous root C. Internal root D. Radical root
486	An equation involving impression of the variable under _____ is called radical equation:	A. Second degree B. Exponent C. Radical D. Cube
487	The expression " $b^2-4ac$ " of a quadratic equation is called:	A. Determinant B. Redicand C. Discriminant D. Index
488	A quadratic equation has:	A. Two roots B. Three roots C. Fourroots D. Fiveroots
489	The nature of roots depends on the value of:	A. $-b+4ac$ B. $b^{\sup{2}}+4c$ C. $b^{\sup{2}}-4ac$ D. $-b+4ac^{\sup{2}}$
490	The discriminant of $2x^2-7x+1=0$ is:	A. 41 B. 45 C. 43 D. 47
491	if $a=1$ , $b=-3$ and $c=3$ , then discriminant is:	A. 3 B. -2 C. 2 D. -3
492	The discriminant of $x^2-3x+3=0$ is:	A. -3 B. 3 C. -2 D. 2
493	If $a=2$ , $b=-7$ , $c=1$ , then the value of $b^2-4ac$ is:	A. 37 B. 39 C. 41 D. 42
494	The discriminant of quadratic equation is:	B. $b^{\sup{2}}-4ac$ C. $-b^{\sup{2}}+4ac$
495	If $b^2-4ac>0$ and is a perfect square, then roots are:	A. Rational and equal B. Rationaland unequal C. Irrationaland equal D. Irrationaland unequal
		A. Rationaland unequal

496	If $b^2-4ac > 0$ and is not a perfect square, then roots are:	B. Irrational and equal C. Rational and equal D. Irrational and unequal
497	If $b^2-4ac = 0$ , then roots are:	A. Rational and equal B. Irrational and equal C. Irrational and unequal D. Rational and unequal
498	If $b^2-4ac < 0$ , then roots are:	A. Unreal B. Imaginary C. Real D. Unequal
499	The nature of the root of equation $x^2-5x+5=0$	A. Rational and equal B. Irrational and unequal C. Irrational and equal D. Rational and unequal
500	Identify the equation whose roots are imaginary and unequal:	A. $2x^2-x+1=0$ B. $x^2+8x+16=0$ C. $3x^2+4x+2=0$ D. $x^2-7x+7=0$
501	The discriminant of $x^2+8x+16=0$ :	A. 4 B. 3 C. 2 D. 0
502	If $a = -2$ , $b = -1$ and $c = -1$ , then discriminant is equal to:	A. 17 B. -17 C. -7 D. 7
503	The nature of roots in equation $7x^2+8x+1=0$ is:	A. Rational and unequal B. Irrational and unequal C. Rational and equal D. Irrational and equal
504	The discriminant of $7x^2+8x+1=0$ is:	A. 32 B. 34 C. 36 D. 38
505	Find k, if the roots are equal in $(k+3)x^2-2(k+1)x-(k+1)=0$ :	A. 2, -1 B. -2, -1 C. -2, 1 D. 2, 1
506	If $a = 7$ , $b = 8$ and $c = 1$ then $b^2-4ac$ is equal to:	A. 33 B. 34 C. 35 D. 36
507	If $(x+1)(7x+1) = 0$ then x is equal to:	
508	The value of $i$ is equal to:	
509	Question Image	
510	Each of the complex cube root of unity is:	A. The square of the other B. The half of the other C. The cube of the other D. Equal to each other
511	Question Image	
512	The product of three cube roots of unity is:	A. Zero B. Four C. Two D. One
513	Question Image	C. 2 D. 1
514	Question Image	A. 2 B. 1 C. 0
515	Question Image	B. 1
516	The some of cube roots of unity is:	A. Zero B. One C. Two D. Three
		A. 4 B. 3


517	Question Image	B. 3 C. 1 D. 0
518	Question Image	
519	Question Image	B. -1
520	Question Image	A. 1 B. -1 C. 0 D. 2
521	Question Image	
522	Question Image	C. 1
523	Question Image	A. 214 B. 256 C. 273 D. 296
524	Question Image	C. 1 D. -1
525	Question Image	A. 1 D. 0
526	In equation $ax^2+bx+c=0$ , a and b are:	A. Constants B. Co-efficients C. Variables D. Factors
527	$ax^2+bx+c=0$ , c is the:	A. Co-efficient B. Variable C. Factors D. Constant
528	Product of two roots =	
529	Sum of the roots =	
530	Question Image	A. P(Product of the roots) B. S (Sum of the roots) C. D (Difference of the roots) D. R (Ratio of the roots)
531	Sum of the roots of the equation $3x^2-5x+7=0$ :	B. $5+3$ D. $5<\sup>3</sup>$
532	Product of the roots of the equation $3x^2-5x+7=0$ :	A. $3<\sup>7</sup>$ B. $7<\sup>3</sup>$
533	The product of roots, of equation $5x^2+(7-2m)x+3=0$ will be:	
534	Question Image	A. 5 B. 18 C. 15 D. 23
535	Question Image	A. 9 B. 7 C. 5 D. 3
536	Question Image	B. bc
537	Question Image	
538	Question Image	A. One variable B. Twovariable C. Threeariable D. Fourvariable
539	Question Image	
540	Question Image	
541	Question Image	
542	Question Image	A. 2 B. 6 D. 5
		A. 7 B. 4

543	$7-7h = 0$ , then $h =$ :	<p>B. 1</p> <p>C. 0</p> <p>D. 49</p>
544	Synthetic division is simply a short cut of:	<p>A. H.C.F</p> <p>B. L.C.M</p> <p>C. Long division method</p> <p>D. Factorization</p>
545	If 1 is the zero of polynomial, then remainder is:	<p>A. 3</p> <p>B. 2</p> <p>C. 0</p> <p>D. 1</p>
546	A relation between two quantities of same kind is called:	<p>A. Proportion</p> <p>B. Ratio</p> <p>C. Variation</p> <p>D. Percentage</p>
547	The ratio of a and b is written as:	<p>B. <math>a :: b</math></p> <p>C. <math>a : b</math></p> <p>D. <math>a = b</math></p>
548	The important thing in ratio is:	<p>A. Value of the elements</p> <p>B. Order of the elements</p> <p>C. Units of the elements</p> <p>D. Quantity of the elements</p>
549	In ratio $a : b$ , the first term is called:	<p>A. Extremes</p> <p>B. Means</p> <p>C. Consequent</p> <p>D. Antecedent</p>
550	A ratio has:	<p>A. No units</p> <p>B. One unit</p> <p>C. Two units</p> <p>D. Three units</p>
551	The ratio of 1km to 600m is:	<p>A. 1 : 6</p> <p>B. 5 : 3</p> <p>C. 3 : 2</p> <p>D. 2 : 1</p>
552	A proportion is a statement which expressed as an equivalence of:	<p>A. Four ratios</p> <p>B. Three ratios</p> <p>C. Two ratios</p> <p>D. One ratio</p>
553	Product of extremes = product of _____.	<p>A. Consequents</p> <p>B. Antecedent</p> <p>C. Ratios</p> <p>D. Means</p>
554	Variation has	<p>A. Two types</p> <p>B. Three types</p> <p>C. Four types</p> <p>D. Five type</p>
555	If Y is directly proportional to x it can be written as:	<p>C. <math>x = y</math></p> <p>D. <math>y : x</math></p>
556	K is known as:	<p>A. Sign of proportionality</p> <p>B. Extremes</p> <p>C. Constant of proportionality</p> <p>D. Means</p>
557	If $y = kx$ , $x = 7$ and $y = 6$ , then $k =$	<p>A. 42</p> <p>C. 13</p>
558	If one quantity increases and other decreases, the variation is:	<p>A. Inverse</p> <p>B. Direct</p> <p>C. Indirect</p> <p>D. Equal</p>
559	If $y = 8$ and $x = 4$ , then $k = xy$ , we get $k =$	<p>A. 12</p> <p>B. 32</p> <p>C. 84</p> <p>D. 114</p>
560	In $a : b :: b : c$ , where c is called:	<p>A. Fourth proportional</p> <p>B. Mean proportional</p> <p>C. Third proportional</p> <p>D. Continued proportional</p>
561	In $a : b :: b : c$ , b is called:	<p>A. Mean proportional</p> <p>B. Third proportional</p> <p>C. Continued proportional</p> <p>D. Fourth proportional</p>

562	In $a : b :: c : d$ , $d$ is called:	A. Thirdproportional B. Fourthproportional C. Meanproportional D. Continuedproportional
563	If 12, $p$ and 3 are in continued proportion, then $p =$	
564	If $a : b = c : d$ , then $b : a = d : c$ is called theorem of:	A. Invertendo B. Alternando C. Dividendo D. Componendo
565	If $a : b = c : d$ , then $a : c = b : d$ is called theorem of:	A. <span style='font-size: 10.5pt; line-height: 107%; font-family: Arial, "sans-serif"; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;'>Invertendo</span> B. Componendo C. Dividendo D. Alternando
566	If $a : b = c : d$ , then $a + b : b = c + d : d$ is called theorem of :	A. Alternando B. <span style='font-size: 10.5pt; line-height: 107%; font-family: Arial, "sans-serif"; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;'>Invertendo</span> C. Dividendo D. Componendo
567	If $a : b = c : d$ , then $a - b : b = c - d : d$ is called theorem of :	A. Componendo B. Dividendo C. (a) & ( b) D. <span style='font-size: 10.5pt; line-height: 107%; font-family: Arial, "sans-serif"; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;'>Invertendo</span>
568	If $a : b = c : d$ , then $a + b : a - b = c + d : c - d$ is called theorem of:	A. Componendo-Dividendo B. <span style='font-size: 10.5pt; line-height: 107%; font-family: Arial, "sans-serif"; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;'>Invertendo</span> C. Dividendo D. Componendo
569	The quotient of two numbers or algebraic expressions is called:	A. Ratio B. Fraction C. Proportion D. Percentage
570	The quotient is indicated by a:	A. Comma (,) B. Bracket ( ) C. Bar (-) D. Hyphen (!)
571		A. Proper fraction B. Improper fraction C. Irrational fraction D. Rational fraction
572		A. <p><span style='font-size: 10.5pt; line-height: 107%; font-family: Arial, "sans-serif"; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;'>Proper fraction</span></p> B. Improper fraction C. Irrational fraction D. Rational fraction
573		A. <p><span style='font-size: 10.5pt; line-height: 107%; font-family: Arial, "sans-serif"; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;'>Proper fraction</span></p> B. Rational fraction C. Irrational fraction D. Improper fraction
574		A. <p><span style='font-size: 10.5pt; line-height: 107%; font-family: Arial, "sans-serif"; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;'>Proper fraction</span></p> B. Rational fraction C. Improper fraction D. Irrational fraction
		A. <p><span style='font-size: 10.5pt; line-height: 107%; font-family: Arial, "sans-serif"; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;'>Proper fraction</span></p>

575	Question Image	<p>initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;"&gt;Proper fraction &lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt;</p> <p>B. &lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;Rational fraction&lt;/span&gt;</p> <p>C. &lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;Improper fraction&lt;/span&gt;</p> <p>D. &lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;Irrational fraction&lt;/span&gt;&lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;&lt;/span&gt;</p>
576	Question Image	<p>A. &lt;p class="MsoNormal"&gt;&lt;span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, &amp;quot;sans-serif&amp;quot;; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;"&gt;Proper fraction &lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt;</p> <p>B. &lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;Improper fraction&lt;/span&gt;</p> <p>C. &lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;Rational fraction&lt;/span&gt;</p> <p>D. &lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;Irrational fraction&lt;/span&gt;&lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;&lt;/span&gt;</p>
577	Question Image	<p>A. &lt;p class="MsoNormal"&gt;&lt;span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, &amp;quot;sans-serif&amp;quot;; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;"&gt;Proper fraction &lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt;</p> <p>B. &lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;&lt;/span&gt;&lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;Improper fraction&lt;/span&gt;</p> <p>C. &lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;Rational fraction&lt;/span&gt;</p> <p>D. &lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;&lt;/span&gt;&lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;Rational fraction&lt;/span&gt;</p>
578	Every improper fraction can be reduced to sum of polynomial and a proper fraction by:	<p>A. Addition</p> <p>B. Division</p> <p>C. Subtraction</p> <p>D. Multiplication</p>
579	A single fraction which is the simplified from of two or more than two fractions is called:	<p>A. &lt;p class="MsoNormal"&gt;&lt;span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, &amp;quot;sans-serif&amp;quot;; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;"&gt;Proper fraction &lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt;</p> <p>B. &lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;Improper fraction&lt;/span&gt;</p> <p>C. &lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;Rational fraction&lt;/span&gt;</p> <p>D. &lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;Resultant fraction&lt;/span&gt;&lt;span style="font-family: Arial, &amp;quot;sans-serif&amp;quot;;"&gt;&lt;/span&gt;</p>
580	Question Image	<p>A. Polynomial</p> <p>B. Variable</p> <p>C. Constant</p> <p>D. Co-efficient</p>
581	An identity is:	<p>A. An equation</p> <p>B. A polynomial</p> <p>C. A fraction</p> <p>D. A ratio</p>
582	Question Image	<p>A. An equation system</p> <p>B. A constant</p> <p>C. A quadratic equation</p> <p>D. An identity</p>
583	To resolve rational fraction, the numerator N(x) must be lower degree than the:	<p>A. Quotient Q(x)</p> <p>B. Denominator D(x)</p> <p>C. Nenomenator N(x)</p> <p>D. Polynomian R(x)</p>
584	To resolve rational fraction, multiply both sides by:	<p>A. H.C.F</p> <p>B. An even, number</p> <p>C. L.C.M</p> <p>D. An odd number</p>
585	A quadratic factor is:	<p>A. <math>ax^2+bx+c</math></p> <p>B. <math>ax+b</math></p> <p>C. <math>Ax+B+c</math></p> <p>D. <math>bx+c</math></p>
586	The union of two non-collinear rays with common end point is called a/an:	<p>A. Ray</p> <p>B. Side</p> <p>C. Angle</p> <p>D. Vertx</p>
587	Arms of an angle called:	<p>A. Terminal sides</p> <p>B. Rays</p> <p>C. Rotation of arms</p> <p>D. Position</p>
588	The common end point of arms of an angle is known as:	<p>A. Angles</p> <p>B. Arms</p> <p>C. Vertex</p> <p>D. Rays</p>



589	If the rotation of the rays is anti-clock wise, the angle has _____ measure:	A. Positive B. Radian C. Standar D. Negative
590	If the rotation of the ray is clock wise, the angle has _____ measure:	A. Degree B. Negative C. Positive D. Standard
591	The symbol used to denote a degree is:	A. 100 B. 1° C. 100' D. 1"
592	The symbol used to denote a minute is:	A. 1" B. 1' C. 1° D. 1'''
593	The symbol used to denote a second is:	A. 1°, 1' B. 1° C. 1" D. 1'
594	60 seconds makes _____ minute:	A. 1 B. 2 C. 3 D. 4
595	90 degree makes _____ right angle:	A. 2 B. 4 C. 1 D. 3
596	360 degrees make 4 _____ angles:	A. Obtuse B. Right C. Acute D. Supplementary
597	The decimal degrees of 25°30' is:	A. 25.2° B. 25.3° C. 25.4° D. 25.5°
598	The D° M' S" form of 32.25° is:	A. 32°05' B. 32°10' C. 32°15' D. 32°20'
599	Pi radians is equal to:	A. 150° B. 160° C. 180° D. 240°
600	1 radian is equal to:	A. 57°16'45" B. 57°17'45" C. 57°18'55" D. 57°17'35"
601	1° into radians is:	A. 0.0195 radians B. 0.0165radians C. 0.0185radians D. 0.0175radians
602	A part of the circumference of a circle is called:	A. A segment B. A sector C. An arc D. A radius
603	The medians of equiangular triangles are proportional to their corresponding:	A. Sides B. Angle C. Point D. Altitude
604	Two triangles are similar if and only of their corresponding are equal:	A. Sides B. Points C. Angles D. Squares
605		A. Sides B. Angles C. Squares D. Vertex
606	The sum of the squares of the sides of a rhombus is equal to the sum of the squares of its:	A. Sides B. Diagonlas C. Medians D. Altitude

# D. Altitude

607	The sum of the squares of sides of a rhombus is equal to the sum of the squares of its:	A. Sides B. Diagonals C. Medians D. Altitude
608	Three times the square on any side of an equilateral triangle equal to four times the square on the:	A. Median B. Altitude C. Side D. Vertex
609	Which mathematical expression is correct:	
610	Question Image	
611	In an equilateral triangle ABC, then side BC is trisected at D then:	
612	Question Image	
613	The locus of a moving point P in a plane which is always equidistant from some fixed point O is called:	A. Segment line B. Radial segment C. Circle D. Circumference
614	The circumference of a circle is:	
615	The ratio of the circumference and the diameter of the circle is:	A. r B. e C. d
616	The portion of circumference of a circle is:	A. Radius B. Chord C. Arc D. Segment
617	The straight line joining any two points on the circumference of a circle is called:	A. Chord B. Sector C. Radius D. Arc
618	The straight line that bisect the circle is called:	A. Sector B. Radius C. Diameter D. Segment
619	Any chord divides a circle into two:	A. Parts B. Segments C. Sectors D. Shapes
620	Any pair of radii divides a circle into _____ sectors:	A. Two B. Three C. Four D. Five
621	All the radii of a circle are equal in:	A. Segment B. Measure C. Length D. Portion
622	Question Image	A. Rational number B. Irrational number C. Natural number D. Real number
623	Diameter _____ a circle:	A. Divides B. Trisects C. Intercept D. Bisects
624	The area of a circle is:	
625	Perpendicular bisectors of sides of the triangle provides the:	A. Radius B. Segment C. Diameter D. Centre
626	One and only one circle can pass through _____ non-collinear points:	A. Two B. Three C. Four D. Five
627	A straight line, drawn from the centre of a circle to bisect a chord is _____ to the chord:	A. Parallel B. Equidistant C. Perpendicular D. Congruent

628	Perpendicular from the centre of a circle on a _____ bisects it:	A. Segment B. Arc C. Sector D. Chord
629	A tangent to a circle is perpendicular to the radial segment drawn to the point of:	A. Contact B. Tangency C. Concurrency D. Tangent
630	If a line is drawn perpendicular to a radial segment of a circle at its occurs and point, it is _____ to the circle at that point:	A. Radial B. Parallel C. Tangent D. Perpendicular
631	The tangent to a circle and the radial segment joining the point of contact and the _____ are perpendicular to each other:	A. Chord B. Centre C. Tangent D. Arc
632	The two tangents drawn to a circle from a point outside it, are equal in;	A. Length B. Radius C. Measure D. Diameter
633	Tangents drawn at the ends of _____ of a circle are parallel to each other:	A. Chord B. Diameter C. Corners D. Arc
634	The line that passes through centre and touches a circle at two points is called:	A. Diameter B. Radius C. Arc D. Corners
635	The boundary traced by a moving point in a circle its _____:	A. Circumference B. Diameter C. Radius D. Area
636	Any portion of the circumference will be known as _____ of the circle:	A. A chord B. An arc C. A tangent D. An angle
637	The straight line joining any two points of the circumference is called:	A. Segment of circle B. Arc of circle C. Chord of circle D. Tangent of circle
638	The portion of a circle bounded by an arc and a chord is known as:	A. Diameter of the circle B. Radius of the circle C. Chord of the circle D. Segment of the circle
639	The circular region bounded by an arc of a circle and its two corresponding radial segments is called a:	A. Sector of the circle B. Area of the circle C. Radius of the circle D. Circumference of the circle
640	If two arcs of a circle (or of congruent circles) are congruent, then the corresponding chord are:	A. Perpendicular B. Parallel C. Bisect each other D. Equal
641	If two cords of a circle (or of congruent circles) are equal, then their corresponding arcs (minor, major or semi circular) are:	A. Proportional B. Equal C. Congruent D. Bisecting chords
642	Equal chords of a circle (or of congruent circles) subtend equal _____ at the centre (corresponding centres):	A. Arcs B. Angles C. Regions D. Chords
643	If the angles subtended by two chords of a circle (or congruent circles) at the centre (corresponding centre) are equal, the _____ are equal:	A. Lines B. Segments C. Chords D. Arcs
644	Question Image	A. 1.5cm B. 2.0cm C. 2.5cm D. 3.5cm
645	The angle subtended by an arc at the centre of a circle is called its:	A. Outer angle B. Central angle C. Complementary angle

	Circle is called as:	C. Complementary angle D. Supplementary angle
646	A central angle is subtended by two radii with the vertex at the _____ of the circle:	A. Arc B. Radius C. Centre D. Chord
647	The angle subtended by an arc at the circumference of a circle is called a:	A. Acute angle B. Circum angle C. Abtue angle D. Ascribe angle
648	A circum angle is subtended between any two chords of a circle, having:	A. Circumference B. Diameter C. Radius D. Central angle
649	If a circle passes through three or more points then these points are called:	A. Incyclic B. Concyclic C. Circumcyclic D. Bicyclic
650	A quadrilateral is called cyclic when a circle can be drawn through its _____ vertices:	A. Two B. Three C. Four D. Five
651	In a cyclic quadrilateral, the opposite angles are:	A. Complementary B. Abtuse C. Supplementry D. Acute
652	Any two angles in the same segment of a circle are:	A. Unequal B. Equal C. Parallel D. Perpendicular
653	The opposite angles of any quadrilateral inscribed in a _____ are supplementary:	A. Circle B. Square C. Hexagon D. Rectangle
654	The word geometry is derived from two Greek words namely Geo and:	A. Size B. Land C. Metron D. Shape
655	Geometry means measure of the:	A. Earth or Straight line B. Earth or Land C. Triangle or Polygon D. Earth or Point
656	Euclid's Elements have been thought as _____ all over the world for centuries:	A. Text book B. Reference book C. Helping book D. Major subject
657	A circle of any radius can be constructed by rotating a compass about:	A. A chord B. An arc C. The straight line D. A fixed point
658	The boundary of a circle is called:	A. Circumference B. Arc C. Line D. Area
659	The circumference of a circle is called _____ of a circle:	A. Chord B. Arc C. Radius D. Boundary
660	The line joining the two points of circle is called:	A. Chord B. Diameter C. Arc D. Radius
661	Circles having three points in common will:	A. Be perpendicular B. Concide C. Intersect D. Be equal
662	The distance of a point inside the circle from its centre is _____ than the radius:	A. Greater B. Equal C. Shorter D. Less

A. Less

663	The distance of a point outside the circle from its centre is _____ than the radius:	B. Equal C. Greater D. None of these
664	One and only one circle can be drawn through _____ non-collinear collinear points:	A. One B. Two C. Three D. Four
665	Angle inscribed in a semi-circle is a _____ angle:	A. Obtuse B. Right C. Supplementary D. Acute
666	The radius of incircle is called:	A. In-radius B. Escribed radius C. E-radius D. Radius
667	The centre of incircle is called:	A. Origin B. Incentre C. Centre D. Fixed point
668	From a point outside the circle _____ tangents can be drawn:	A. One B. Two C. Three D. Four
669	A tangent is perpendicular to the radius of a circle at its point of:	A. Tangent B. Touch C. Contact D. Meet
670	Two circles cannot cut each other at more than _____ points:	A. One B. Two C. Three D. Four
671	The perpendicular bisector of a chord of a circle passes through the:	A. Centre B. Radius C. Diameter D. Arc
672	The length of two common tangents to two circles are _____ to each other:	A. Perpendicular B. Equal C. Parallel D. Un-equal
673	If the incentre and circumcenter of a triangle coincide the triangle is:	A. Right angle B. Scalene C. Isosceles D. Equilateral
674	Two intersecting circles are not:	A. Incentric B. Escribecentric C. Concentric D. Circumcentric
675	The radius of a circumscribed circle is called:	A. Circum-radius B. Escribed-radius C. In-radius D. Radius
676	Acute angle is:	A. $80^\circ$ B. $60^\circ$ C. $90^\circ$ D. $120^\circ$
677	$\sin 60^\circ =$	A. 1 B. 0
678	$\tan 180^\circ =$	A. 0 B. 1 C. Not defined D. -1
679	$\sec 270^\circ =$	A. 0 B. 1 C. -1 D. Not defined
680	$\cot 45^\circ =$	A. 1 B. -1 C. 0 D. Not defined
681		A. $90^\circ$ B. $60^\circ$

681 Angle inscribed in a semicircle is always:  
C.  $120^\circ$   
D.  $360^\circ$

682 What is radius in circle ?  
A. Perimeter  
B. Half the diameter  
C. Segment line

683   
A. 4.13  
B. 3.14  
C. 15.4  
D. 17.3