Math Marathon Questions 2022-23 (2079)
Class-8

1. What is the complement of 0^0 ?   [90^0]
2. What is the complement of 55^0 ?   [35^0]
3. What is the complement of 48^0 ?   [42^0]
4. What is the supplement of 180^0 ?   [0^0]
5. What is the supplement of 80^0 ?   [100^0]
6. What is the supplement of 165^0 ?   [15^0]
7. What would be the single value of $25^2 - 15^2 =$?   (400)
8. How many times can a-b be subtracted from $a^2 - b^2$?   (a+b) times
9. How many halves are there in $50\frac{1}{2}$?   (101)
10. What comes next? 61, 52, 63, 94, 46, -----.   (18)
11. Which number am I given the condition that I am the least 3 digits square number that can be read from left or right gives the same.   (121)
12. What makes me so special that the mathematicians like me as I am a perfect square and a cube number? So, who am I? (64)
13. What is the answer for the sum of a, b, and c if a+b=3, b+c=4 and c+a= 5?   (6)
14. How much is $500 \div 0.5$=?   (1000)
15. What is the area of right angle triangle whose sides are 3cm, 4cm and 5cm = ?   (6 sq.cm)
16. What are the 3 consecutive prime numbers which have a difference of 2?   (3,5,7)
17. What would be the value of abc if ab=4, bc=5 and ca=20 ?   (20)
18. What is that value if y is subtracted from x if x=7 and y= -3 ?   (10)
19. What are the next two numbers in the sequence 1,3,7,15 ---,----?   (31, 63)
20. What is the H.C.F of 2, 3, 4 ?   (1)
21. What is the L.C.M of 2, 3, 4 ?   (12)
22. What is the area of circle whose radius is $\sqrt{7}$ m ?   (22) sq.m
23. What is the product of a and b if 4:a=b:3?   (12)
24. What is the exterior angle of a triangle whose two interior opposite angles are 42^0 and 58^0=?   (100^0)
25. What should be subtracted from a to get b?   (a – b)
26. What is the side of a square whose perimeter is 100m?   (25 m)
27. How many Kg make one quintal?   (100 Kg)
28. What is the value of $125^{\frac{2}{3}}$?   (25)
29. What is the supplement of 70^0 ?   (110^0)
30. What is the complement of 46^0 ?   (44^0)
31. What is A:B if A is 77% of B?   (77:100)
32. What is the result for $100 \div 100 \times 100 + 100 - 100$ =?   (100)
33. What is the area of a rectangle whose sides are 9cm and 8cm?   (72 sq.cm)
34. What is the length of a side of a square whose area is 361 sq.m?   (19m)
35. How much is 3 tenth + 7 tenth?   (1)
36. How many circular coins of radius 2 cm can be adjusted inside a square of side 8 cm?(4)
37. How much is a quarter of 5 dozens?   (15)
38. Which is greater? 40% of 50 or 50% of 40   (Equal)
39. What are the prime factors of 111 -------, ------- ?   (3 and 37)
40. What is it, Yes or No? Are all similar triangles congruent?   (No)
41. What is it, Yes or No? Are all congruent triangles similar?   (Yes)
42. What is the area of a square if its perimeter is 16 cm? Is it's area too 16 cm^2 ?   (Yes)
43. How many diameters of a circle can be drawn?   (Infinite)
44. What is the square-root of 169 ?   [13]
45. What index of x will equal to $\frac{1}{x}$?   [-1]
46. What is the value of $9^{\frac{1}{2}}$? [3]
47. What is the cube-root of 216 ?   [6]
48. What is the value of $\sqrt{25} + \sqrt{9}$?   [8]
49. What is the value of $\sqrt{16}$ x $\sqrt{4}$?   [8]
50. What is the compound ratio of 2:3 and 3:4? [1:2]
51. What is the ratio of 20 boys to 30 girls? [2:3}
52. What is the ratio of 1kg. to 500grams? [2:1]
53. What is the ratio of 2 hours. to 40 minutes? [3:1]

54.   What is the value of $6^2 + 8^2$?   [100]
55.   What is the value of $11^2 + 10^2$? [221]
56.   What is the value of 2^2 x 3^2 x $(4)^0$? [36]
57.   What is the square of 15 ? [225]
58.   How much is 4fifth + 6 fifth ? [2]
59.   How many right angles make a straight angle ? [two right angles]
60.   What is the number of sweets in each plate if 5 dozen sweets are placed equally in 6 plates.? [10]
61.   How many edges does a hexagonal pencil have which is not sharpened? [8]
62.   What is the biggest number that can be written with four 1s? [11^{11}]
63.   What is the biggest number that can be written with two 9s? [9^9]
64. How much does A:B equal to if A is 67% of B ? [67:100]
65. How much does B:A equal to if A is 27% of B ? [100:27]
66. How much percentage of B is A if A:B $=$ 3:4 ? [75%]
67.   What is the prime number next to 100 ? [101]
68.   What is the mean of 3,9 and 12? [8]
69.   . How many objects are there in 15 dozens given the fact that a dozen consists of 12 objects? [180]
70.   What is the percent of 0.07. [7%]
71.   What is the smallest number divisible by 4 and 6 . [12]
72.   What should be the cost price of the pen if Rs 10 is gained by selling it at 10% profit.? [Rs.100]
73.   How much is 20% of Rs.300? [Rs.60]
74.   What is the number whose 10% is 2 ? [20]
75.   What is that number whose 5% equals to 5? [100]
76.   What is the discount percent if Marked price = Rs. 100 , and S.P = Rs.85? [15%]
77.   What is the selling price if Marked price = Rs.175, and discount = Rs.50?. [Rs.125]
78.   What is the marked price if Selling price = Rs.185, and discount = Rs.15? [Rs.200]
79.   What is the amount of discount if M.P = Rs. 200 , and discount = 15% ? [Rs.30]
80.   What could be the selling price if M.p = Rs100 , and discount = 20% ? [Rs.80]
81.   What is the mean proportional between 2 and 8? [4]
82.   What is the product of (x + y) and $(x^2 - xy + y^2)$?   [$x^3 + y^3$]
83.   How much is $(2^3)^2$? [64]
84.   What is the complement of 62^0? [28^0]
85.   What is the supplement of 82^0?   [98^0]
86.   Find the other angle if one angle of the linear pair is 68^0 ?[112^0]
87.   What would be the value of x If ($2x)^0$ and $(3x)^0$ form a complementary angle ? [x = 18^0]
88.   What would be the value of x if ($7x)^0$ and $(8x)^0$ form a supplementary angle ? [x = 12^0]
89.   What is the value of x when ($5x)^0$ and $(13x)^0$ form a linear pair ? [x = 10^0]
90.   What is the value of $(2xyz)^0$? [1]
91.   What is the value of $\frac{3}{4} + \frac{5}{4}$? [2]
92.   What is the value of $\frac{5}{7} - \frac{8}{7}$? [$-\frac{3}{7}$]
93.   What is the value of x If $x^2 = 36$? [x = ± 6]
94.   What is the value of x if $x^2 = \frac{25}{49}$? [x = $\pm \frac{5}{7}$]
95.   What is the value of x if $x^2 - 16 = 0$? [± 4]
96.   What is the sum of interior angle of a triangle? [180^0]
97.   What are those angles of a triangle whose sum equals to the Exterior angle of a triangle? [opposite angles]
98.   Which angles of an isosceles triangle are equal? [Base angles]
99.   What is a polygon having six sides called ?[hexagon]
100. Which one is it? Equal or Unequal. Corresponding sides and angles of congruent triangles are? [equal]
101. What is the relations between the corresponding sides of similar triangles have? [proportional]
102. How many pair of angles are formed when two non-intersecting lines are cut by a transversal? [4 pairs.]
103. What is the length of hypotenuse if the two sides of a right angled triangle are 6cm. and 8cm ? [10cm.]
104. How much is $\frac{2}{5}$ of 100kg. ? [40kg.]
105. How much is $\frac{1}{4}$ of 60km. ? [15km.]
106. What is the value of $1 + \frac{9}{x}$ if x = 3?   [4]
107. What is the perimeter of a rectangle if its sides are 8cm. and 7cm ? [30cm.]
108. Which number is a factor of every number? [1]
109. What is the remainder when 123 is divided by 100? [23]

110. How many marbles does a man have out of 100 marbles if he sells $\frac{1}{5}$ of them ? [80]

111. What fraction of the cloth is left If $\frac{1}{3}$ is cut off from it? $\left[\frac{2}{3}\right]$.

112. How much is 50% of 25 x 4 ? [50]

113. How many months are there in $5\frac{1}{3}$ years? [64months]

114. What is the result of H.C.F. of 32 and 48 ? [16]

115. How much is $\frac{1}{10}$ of an hour in seconds? [360seconds]

116. How many hours a man will take to cover 90km if he covers 15km. in an hour..? [6 hours]

117. What is the number if we add 3 to the double of it, we get 33 ? [15]

118. What is the sum when 50% of it is Rs.85 ? [Rs.170]

119. How much is 80% of 20? [16]

120. How much is 2%of Rs.7200? [Rs.144]

121. What are the two prime factors of 69?   [3 and 23]

122. What is the supplement of 150^0? [30^0]

123. How many right angles are there in 360^0? [4 right angles]

124. What is the measurement of third angle if two angles of a triangle are 70^0 and 80^0.? [30^0]

125. What is it? Equal or Unequal. If two triangles are congruent, their corresponding sides and angles are?[equal]

126. What is it if two triangles are similar, their corresponding sides are? [proportional]

127. What will be the area of a circle whose radius is 7meters?   [154sq.meter]

128. What is the L.C.M. of $(m-n)^2$ and (m-n).   [$(m-n)^2$]

129. How much is half of a sum if one-fifth of it is Rs20 ? [Rs.50]

130. What is the measurement of each base angle of an isosceles triangle if the vertical angle is 80^0? [50^0]

131. What is the income of B if the ratio of the income of A to B is 10:11 and the income of A is Rs.10,000 ? [Rs.11,000]

132. What is the value of $\frac{3}{4}$ of 120 kg.? [90kg.]

133. How much is $\frac{3}{5}$ of Rs.100? [Rs.60]

134. What is the L.C.M. of 2, 3 and 4? [12]

135. What is the H.C.F. of 3, 5 and 6? [1]

136. What is the square rot of 441 ? [21]

137. What is the cube of 6?   [216]

138. What is the square of 17? [289]

139. What is the number if $\frac{1}{2}$ of the number $=\frac{7}{2}$,? [7]

140. What is that least number which makes a perfect square when it multiplies the number 32 ? [2]

141. What is the value of x If 2x + 5 = 15 ? [5]

142. What is the value of b If a = 7 and a+b =47 ? [40]

143. What is the value of a If 2a -25 = 75? [50]

144. How much is 1 ÷ 0.5 ? [2]

145. What does XL represent in Roman number? [40]

146. What does CM represent in Roman number? [900]

147. What does CD represent in Roman number? [400]

148. How much is the cost of 3pens If the cost of 4 pens is Rs.60 ? [Rs.45]

149. What does MC represent in Roman number? [1100]

150. What does DC represent in Roman number? [600]

151. What is the complement of 72^0? [18^0]

152. What is the supplement of 108^0? [72^0]

153. What is the special algebraic term "name"for the expression $ax^2 + bx + c$? [trinomial]

154. What are the two consecutive numbers whose sum is 49? [24 and 25]

155. How far is a man from his starting point if he walks 3km. due east and then 4km. due north ? [5km.]

156. What is the measurement of each angle of an equilateral triangle? [60^0]

157. How much is 25 X 18 more than 24 X 18 ? [18]

158. What is the length of a rectangle whose area and breadth are $35m^2$ and 5meters respectively? [7meters]

159. How many edges does a cube have altogether? [12]

160. What is the

161. Four- digit perfect square number whose first two and the last two digit each represent square numbers?   [$41^2 =1681$]

162. What are the two different positive whole numbers x and y so that $x^y = y^x$? [2 and 4]

163. What is the number if the square-root of it is two times its cube-root ? [64]

164. How many times (a-b) can be subtracted from $a^2 – b^2$? [(a +b) times]

165. What is the number when it is added with its half the sum gives 12 ? [8]

166. What is the number when it is multiplied by itself gives the product 361 ?[19]
167. What percent of Rs. 20 is Rs.15 ? [75%]
168. What will be the radius of the circle whose area is 36π square centimeters? [6cm.]
169. What are the two numbers which are in the ratio 3:5 and their sum is 16? [6, 10]
170. What is the cube-root of 729?   [9]
171. What if H.C.F. and L.C.M. of two numbers are 4 and 8 respectively and one number is 16, find the other number.   [2]
172. What is the H.C.F. of two number if their product 72 and their L.C.M. is 12 ? [6]
173. What is the greatest number which exactly divides 18 and 12? [6]
174. What is the smallest number divisible by 4, 8,and 15? [120]
175. What are the factors of $4x^2 - 9y^2$? [$(2x +3y)(2x- 3y)$]
176. What is the product of (3a- 2b) and (3a + 2b) ? [$9a^2- 4b^2$]
177. What should be subtracted from y to get z? [y – z]
178. What is the product of (m – n) and ($m^2 + mn + n^2$)? [$m^3 - n^3$]
179. What is the Value of $Sin30^0$?[$\frac{1}{2}$]
180. What is the Value of $Sin45^0$?[$\frac{1}{\sqrt{2}}$]
181. What is the Value of $Sin60^0$?[$\frac{\sqrt{3}}{2}$]
182. What is the Value of $Cos60^0$?[$\frac{1}{2}$]
183. What is the Value of $Cos30^0$?[$\frac{\sqrt{3}}{2}$]
184. What is the Value of $Tan30^0$?[$\frac{1}{\sqrt{3}}$]
185. What is the Value of $Tan45^0$?[1]
186. What is the Value of $Tan60^0$?[$\sqrt{3}$]
187. What power of 10 gives a million? [6]
188. What power of 10 gives a billion? [9]
189. What power of 10 gives a trillion? [12]
190. What power of 10 gives a googol? [100]
191. What is a curved line that is part of the circumference of a circle called?[arc]
192. What is a line segment within a circle that touches 2 points on the circle called?[chord]
193. What is the distance around the circle called?[circumference]
194. What is the longest distance from one end of a circle to the other called?[diameter]
195. What is a Greek letter to represent ratio of the circumference to the diameter of any circle called?[pi (π)]
196. What is the Distance from center of a circle to any point on it called? [radius]
197. What is a line perpendicular to the radius that touches ONLY one point on the circle called? [tangent]
198. What is the full form of Sec ? [Secant]
199. What is the full form of Cosec? [Cosecant]
200. What is the full form of Cot ? [Cotangent]
201. What is the Name of the quadrilateral having a reflex angle? (Concave quadrilateral)
202. What is the Name of the quadrilateral having all the angles less than two right angles? (Convex quadrilateral)
203. What is the Name of the quadrilateral having a pair of opposite sides parallel? (trapezium)
204. What is the Name of the quadrilateral having one of the diagonals bisecting other diagonal at right angle? (kite)
205. What is the Name of the quadrilateral in which the diagonals bisect each other? (Parallelogram)
206. What is the Name of the quadrilateral in which the diagonals bisect each other at right angles? (square)
207. What are the Parallel sides of a trapezium called?(bases)
208. What are the none parallel sides of a trapezium called ?(legs)
209. What is Rectangle having adjacent sides equal called? (square)
210. What is a triangle having a pair of angles equal called?(an isosceles triangle)
211. What is a triangle having all the angles equal called?(an equilateral triangle)
212. What is a triangle having all the medians perpendicular to opposite sides called? (an equilateral triangle)
213. What is the Name of the quadrilateral having opposite sides equal? (Parallelogram)
214. What is the Name of the quadrilateral having opposite sides parallel? (Parallelogram)
215. What is the Name of the quadrilateral having all the angles equal? (Rectangle)
216. What is the Name of the quadrilateral having all the sides equal? (rhombus)
217. What is the Name of the quadrilateral having all the sides and diagonals equal? (square)
218. What is the Name of the quadrilateral having diagonals as well as the opposite sides equal ?(rectangle)
219. What is the Name of the quadrilateral having a right angle as well as the opposite sides parallel? (rectangle)
220. What is the Name of the quadrilateral having all the sides equal as well as an angle equal to a right angle? (square)