

Math Marathon Questions 2021-22 (2078)**Class-7**

1. Which set does not contain any element? Ans: empty or null set
2. How many methods are there for describing a set? Ans: 3
3. What is the place value of 5 in 654321? Ans: 50000
4. Which is the greatest 4 digits number? ans: 9999
5. How many thousands are there in 1 lakh? Ans: 100 thousand
6. How many millions are there in 1 crore? Ans : 10 million
7. What is value of XLV in hindu-arabic numerals? Ans:45
8. What is value of 53 in roman numerals? Ans: LIII
9. What is the full form of L.C.M? Ans: lowest common multiple
10. What is the full form of H.C.F? ans : highest common factor
11. Is 7 a prime factor? Ans: yes
12. Is 15 a composite number? Ans: yes
13. Is 1 a factor of 24? Ans: yes
14. Is 3 a factor of 17? Ans: no
15. How many meters are there in 1 kilometer? Ans: 1000 meters
16. A ratio does not have any unit? Is it true or false? Ans: true
17. In ratio and proportion, the product of extremes is equal to the product of? _Ans: means
18. What is The single value of $25^2 - 15^2 = ?$ (400)
19. How many times can $a-b$ be subtracted from $a^2 - b^2$? (a+b) times
20. How many halves are there in $50\frac{1}{2}$? (101)
21. I am the least 3 digits square number that can be read from left or right gives the same. Who am I? (121)
22. How many three quarters are there in 9 ? (12)
23. What comes next? 61, 52, 63, 94, 46,----- (18)
24. I am two digits number. The mathematicians like me because I am perfect square and cube number. Who am I? (64)
25. If $a+b=3$, $b+c=4$ and $c+a= 5$, what is the value of $a+b+c$ (6)
26. How much is $500 \div 0.5$ (1000)
27. What is the 20% of Rs 200? (Rs 40)
28. In $(AH)^2 = AHH$, find the digits the letter stands for. (A=1, H=0)
29. A student created a new method of multiplication in which $3 \times 4 = 19$, $5 \times 6 = 41$ what is the value of 6×7 (55)
30. If $2@3=35$, $3@4=91$ what is value of $3@3$ (54)
31. How many times 4^2 appear in the equation $\sqrt{4^2 + 4^2 + 4^2 + \dots + 4^2} = 4^2$ (16 times)
32. How many edges does a cuboid have altogether? (12)
33. The boiling point and freezing point of a liquid are 73^0c and -27^0c respectively. What is the difference between these two points. (100⁰c)
34. The product of the ages of 3 brothers is 20 years. If two of them are twins, how old is the other? Assuming that their ages are whole numbers greater than one . (5 yrs.)
35. How much is $2^{12} - 2^{11}$? (2¹¹)
36. If $(x-8)^2 = 100$, what is the minimum value of x (-2)
37. If $ab=4$, $bc=5$ and $ca=20$, what is the value of abc (20)
38. If $x=7$ and $y= -3$, what is the value of $x - y = ?$ (10)
39. What are the next two numbers in the sequence 1, 3, 7, 15-----,-----? (31, 63)
40. What is the H.C.F of 2, 3, 4? (1)
41. What is the L.C.M of 2, 3, 4? (12)
42. What is the area of circle whose radius is $\sqrt{7}$ m (22 sq.m)
43. If $4:a=b:3$, what is the value of $a \times b$ (12)
44. What is the exterior angle of a triangle whose two interior opposite angles are 42^0 and 58^0 ? (100⁰)
45. What should be subtracted from a to get b? (a - b)
46. What is the side of a square whose perimeter is 100m? (25 m)
47. How many Kg make one quintal? (100 Kg)
48. What is the value of $125^{\frac{2}{3}}$ (25)
49. What is the value of supplement of 70^0 ? (110⁰)
50. What is the value of complement of 46^0 ? (44⁰)
51. If A is 77% of B, then what is the value of A:B (77:100)
52. If $A:B = 3:4$, then A is how much % of B (75%)
53. What is the value $100 \div 100 \times 100 + 100 - 100$? (100)

54. What is the area of a rectangle whose sides are 9cm and 8cm? (72 sq.cm)
55. The length of a side of a square whose area is 361 sq.m (19m)
56. What is value of 3 tenth + 7 tenth (1)
57. The line joining the mid-point of the side of a triangle to its opposite vertex which is called (Median)
58. What is The length of hypotenuse of a right angled triangle whose two sides are 6cm and 8cm is (10cm)
59. If $a=2$ and $b=3$, what is the value of $a^b + b^a = ?$ (17)
60. What are three numbers whose sum and product are same? (1,2,3)
61. If $3x^2/2 = 2/3$, what are the possible values of x ($\pm 2/3$)
62. $37 \times 3 = ?$ (111)
63. If $1/x = x/9$, what are the possible values of x (± 3)
64. If $1-x-x^2=0$, what is the value of $1+x+x^2$ (2)
65. 20×50 is more than 19×50 . How much is more? (50)
66. If $7^x \times 7^y = 7^{100}$, what is the average of x and y (50)
67. What are the next two numbers in the sequence 1,1,4,8,9,27,16 ----? (64,25)
68. What is the area of right triangle whose sides are 6cm, 8cm and 10cm? (24 sq.cm)
69. What are the prime numbers between 20 and 35? (23,29,31)
70. What is the total surface area of a cube whose side is 2 cm? (24 sq.cm)
71. Ten times of a number is equal to 5 times 20, then what is that number (10)
72. What are the prime factors of 111? (3 and 37)
73. Are all similar triangles congruent? (No)
74. Are all congruent triangles similar? (Yes)
75. The perimeter of a square is 16 cm. Is its area too 16 cm^2 ? (Yes)
76. How many diameters of a circle can be drawn? (Infinite)
77. What power of 10 gives a million? [6]
78. What power of 10 gives a billion?[9]
79. What power of 10 gives a trillion?[12]
80. What power of 10 gives a googol?[100]
81. What is the Name of quadrilateral having a reflex angle? (Concave quadrilateral)
82. What is the Name the quadrilateral having all the angles less than two right angles? (Convex quadrilateral)
83. What is the Name the quadrilateral having a pair of opposite sides parallel? (trapezium)
84. What is the Name the quadrilateral having one of the diagonals bisecting other diagonal at right angle? (kite)
85. What is the Name the quadrilateral in which the diagonals bisect each other? (Parallelogram)
86. What is the Name the quadrilateral in which the diagonals bisect each other at right angles? (square)
87. What are the 3 consecutive prime numbers which have a difference of 2? (3,5,7)
88. Parallel sides of a trapezium are called(bases)
89. The none parallel sides of a trapezium are called(legs)
90. Rectangle having adjacent sides equal is called....(square)
91. The line joining the vertex and middle point of opposite side of a triangle is called(Median)
92. A triangle having a pair of angles equal is called..... (an isosceles triangle)
93. A triangle having all the angles equal is called..... (an equilateral triangle)
94. A triangle having all the medians perpendicular to opposite sides is called..... (an equilateral triangle)
95. What is the Name of quadrilateral having opposite sides equal? (Parallelogram)
96. What is the Name of quadrilateral having opposite sides parallel? (Parallelogram)
97. What is the Name of quadrilateral having all the angles equal? (Rectangle)
98. What is the Name of quadrilateral having all the sides equal? (rhombus)
99. What is the Name of quadrilateral having all the sides and diagonals equal? (square)
100. What is the Name of quadrilateral having diagonals as well as the opposite sides equal? (rectangle)
101. What is the Name of quadrilateral having a right angle as well as the opposite sides parallel? (rectangle)
102. What is the Name of quadrilateral having all the sides equal as well as an angle equal to a right angle? (square)
103. A set having no elements which is called (Empty/Void/Null set)
104. A set having one element which is called..... (Singleton set)
105. Sets having no elements in common which are called(Disjoint sets)
106. Sets having some elements in common which are called(Overlapping sets)
107. What is the biggest number that can be written with four 1s? [11^{11}]
108. What is the biggest number that can be written with two 9s? [9^9]
109. If the cost of 1 rubber is rs 5. What is the cost of 11 rubbers? Ans: rs.55
110. What do you mean by the term "unit cost"? Ans: the cost of 1 unit or the value of 1 unit

111. What is the formula for profit? Ans: profit=selling price(s.p)-cost price?(c.p)
112. What is the formula for loss? Ans: loss=cost price(c.p)-selling price?(s.p)
113. What is the formula for loss percent? Loss percent=loss or loss amount/cost price x 100%
114. What is the formula for gain/profit percent? Ans: gain/profit percent=profit or profit amount/cost price x 100%
115. What is the formula of selling price(s.p) in case of profit or gain? Ans: S.P=cost price + profit
116. What is the formula of selling price in case of loss? Ans: S.P= cost price – loss
117. What is the formula of cost price (c.p) in case of profit or gain? Ans: C.P= selling price – profit
118. What is the formula of cost price(c.p)in case of loss? Ans: C.P=selling price +loss
119. What is the formula for simple interest (I)? Ans: $P \times T \times R / 100$
120. What is the formula for amount? Ans: amount(A)=principal +interest
121. What is the formula for calculation of time (T)? Ans: $T = I \times 100 / P \times R$
122. What is the value of $5 \times 4 \times 3 \times 2 \times 0 + 1$? Ans: 1
123. What is the value of $-2x - 7x - 1$? Ans : - 14 or minus 14
124. If $X + 1 = 0$. What will be the value of x? Ans: $x = -1$
125. If x represents the number of districts of Nepal. Is it constant or variable? Ans: constant
126. What should be added to 7a to get 15a? ans: 8a
127. Are 3x and 5xy like terms? Ans: no
128. Are 2ab and 3ba unlike terms? Ans: no
129. what is the formula for? (a +b)
130. Which one is greater between -5 and -15? Ans: -5
131. What is right angle? Ans: angle which is exactly 90 degree
132. How many right angles are there in a straight angle? Ans: 2
133. Which terms cannot be added and subtracted? Ans: unlike terms
134. Is 0 a natural number? Ans: no
135. Which is the smallest prime number? Ans: 2
136. 0 + natural numbers= which numbers? Ans: whole numbers
137. What do you mean by the word “percent”? Ans: 1/100 or pre hundred or out of hundred
138. Which set contains only one element? Ans: unit or singleton set
139. Sets are always denoted by small letters. Is it true? Ans: false
140. Is $5x$ a monomial expression? Ans: yes
141. Is $3a + 2b$ a trinomial expression? Ans: no
142. Which angle is greater than 0 degree but less than 90 degree? Ans: acute angle
143. Which angle is exactly 180 degree? Ans: straight angle
144. What is the complement of 67 degree? Ans: 23 degree
145. What is the supplement of 165 degree? Ans: 15 degree
146. What do we use to measure angles? Ans: protractor
147. Which angle is greater than 180 degree but less than 360 degree? Ans: reflex angle
148. What is the coefficient and power of the algebraic term $11y$. ans: coefficient=11 and power= 1
149. What do you mean by a collection of well defined objects? Ans: set
150. What is the H.C.F of 2 and 3? Ans: H.C.F=1
151. What is the L.C.M of 1, 2 and 3? Ans: L.C.M=6
152. What is value of Angles of a complete turn Ans: 360 degree
153. In simple interest the time should always be in..... ans: years
154. What do you mean by the deposited or borrowed money in simple interest? Ans: principal
155. Are vertically opposite angles always equal? Ans: yes
156. What are the two things common in adjacent angles? Ans: vertex and arm
157. Which angles do not have any common vertex and arm? Ans: corresponding angles
158. In which triangle the lengths of all 3 sides are equal? Ans: equilateral triangle
159. In which triangle the lengths of any two sides are equal? Ans: isosceles triangle
160. In which triangle the lengths of none of the sides are equal? Ans: scalene triangle
161. How many line segments are there in a triangle? Ans: 3
162. The sum of angles of a triangle is equal to 280 degree. Is this right? Ans: no
163. Which line segments cut each other through a common point? Ans: intersecting lines
164. How many arms are there in an angle? Ans: 2
165. Which line segments do not meet each other? Ans: parallel lines
166. Rs 3.7 is equal to how much of paisa. Ans: 3700 paisa
167. A line can be straight or curved. Is this correct? Ans: yes
168. What is the value of 25% of 480? Ans: 120
169. What percent of 300 is 72? Ans : 24%

170. What is the 30% of 120? Ans: 400
171. If $a=2$, $b=3$, and $c=4$, what is the value of $\sqrt{a+b+c}$ Ans: 3
172. What is the value of $|-7-10|$? Ans: 17
173. What is the complement of 75° ? Ans : 15°
174. An old man uses a magnifying that enlarges things exactly two times. How many degrees will the angle 25° appear to him? Ans: 25°
175. Find the value of $(8/27)^{1/3}$. Ans (2/3)
176. If the angle x° and $2x^\circ$ form a linear pair, what is their values Ans:- (60° and 120°)
177. If the cost of 7 books is Rs. 210, what is the cost of 12 books. Ans:-360
178. If 18 men can build a wall in 12 days, how many men are required to build the same wall in 8 days? Ans:-
179. What is the supplement of 85° ? Ans:- 95°
180. What is the square root of 256 ? Ans:- (13)
181. What is the square root of 625 ? Ans:- (25)
182. What the cube root of 27? Ans:- (3)
183. What the cube root of 64? Ans:-4
184. What the cube root of 125. Ans:-5
185. The mark obtained by the 5 student in a class are 16,10,14,8,12. Find the average marks. Ans:-12
186. There are 225 boys in a xchool which is 75% of the total number of students. How many girls are there in the school. Ans:-75.
187. The ratio of the ages of father and son is 9:4. If the son is 24 years old, what is the father's age. Ans:-54 year.
188. A ratio is equal to 5:7 . If the antecedent in 25, what is the consequent. Ans:-35
189. Express the following fraction into percent $\frac{3}{4}$. Ans:- 75%
190. What is the percent of decimal 0.7? Ans:-70%
191. What is the fraction of 25% ? Ans:-($1/4$)
192. What is the decimal of 48%? Ans:-0.48
193. Sameer obtained 60 marks out of 80 full marks in Math. What is the percent Ans:-75%
194. A shopkeeper buys a watch for as 350 and sells it for Rs.378. what is his profit percent. Ans:-8%
195. How many millimeters are there in 0.8 cm ? Ans:-8mm
196. How many centimeters are there in 9 mm? Ans:-0.9mm
197. A man purchased a camera for Rs.750 and sold it at a profit of 20 % . what is his profit amount. Ans:-150
198. The sum of two numbers is 50 . If the greater number enceeds the smaller by 10, what are the the numbers. Ans:-20 and 30.
199. If the perimeter of a rectangle field of length 25 m is 86m, what is it's breadth. Ans:-18m.
200. Find the number as the product of power 10, 13,00,000. Ans:- 13×10^5
201. What is the value of $5^4 \div 5^{12}$? .Ans :- 5^{-7}
202. What is the value of x; $X:15=42:45$? Ans:14
203. 7 workers build a wall in 20 days .How many workers should be employed to build it in 14 days. Ans:-10
204. $(x-a)(x-b)(x-c).....(x-y)(x-z)$ Ans: 0
205. An exam begins at 7.30 am. It was of 2 hrs 45 mins duration. At what time did it finish? Ans : [10:15]
206. What are the next two terms of the series: $1+3+7+15+31+.....+.....$? Ans 63 and 127
207. $\frac{1}{2}$ of a number is $7/2$; what is the number? Ans : 7
208. What are the next two terms of the series 1, 2, 4, 7, 11, 16, 22 ,.....,? Ans : (29,37)
209. What is the speed of the object which travels 125m in 5 secs? Ans : 25m/sec
210. What is the cube root of 729? Ans : 7
211. What is the value of $10 \div 10 \times 10 + 10 - 10$? Ans : 10
212. What are the least three integers whose product and the sum are the same? Ans : 1, 2 and 3
213. What is the prime number next to 100? Ans : 101
214. What is the square of 15? Ans: 225
215. If $2a - 25 = 75$, what is the value of a Ans: 50
216. $1 \div 0.5 = ?$ Ans: 2
217. By which least number should we multiply 32 to get the perfect square? Ans : 2
218. What is the The square root of 441? Ans : 21
219. 5 dozen sweets are placed equally in 6 plates. What is the number of sweet in each plate? Ans : 10
220. $S.P = (100 + \text{profit}) \% \text{ of } C.P$ Is it True or False? Ans : True
221. The ratio of the income of A to B is 10:11; if the income of A is Rs 10,000; what is the income of B ? Ans : 11,000
222. How many months are there in 8 and $1/3$ yrs? Ans : 100 month