

# Brihan Mumbai Ganit Adhyapak Mandal, Mumbai

Date : 30-7-2016

MATHS CONCEPT EXAMINATION 2016

Time : 3 pm. to 5 pm.

STD. : VIII

MAX. MARKS : 100

**Instructions :** 1) Question paper and answersheet are separate.

2) Rough work is to be done in the space provided in each page of the question paper.

3) Do not fold answer sheet.

4) Colour the correct alternative on answer sheet with black ball pen.

Example question : 1) What is the sum of all angles of a quadrilateral ?

A)  $180^\circ$  B)  $360^\circ$  C)  $120^\circ$  D) none of these

On Answer Sheet - A)  B)  C)  D)

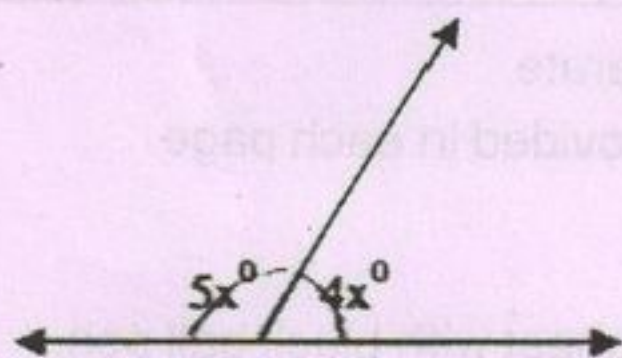
B) is the correct answer and coloured as shown above.

- 1) The cost of 9 books is Rs. 1530, what will be cost of 5 books ?  
A) Rs. 170      B) Rs. 630      C) Rs. 850      D) Rs. 450
- 2) Angle inscribed in major segment of a circle is always .....  
A) Acute angle      B) right angle      C) Obtuse angle      D) none of these.
- 3)  $0.6 \times 0.06 \times 0.006 = \dots\dots\dots$   
A) 0.0216      B) 216.000      C) 0.000216      D) 0.216
- 4) 3, 6, 10, 15 are called triangular numbers, and then which of the given number is triangular as well as a square number.  
A) 64      B) 49      C) 16      D) 36
- 5) When the product of two numbers is 1 then those numbers are ..... of each other.  
A) additive inverse      B) multiplicative inverse  
C) opposite numbers      D) none of these
- 6)  $(172)^2 - (72)^2 =$   
A) 10000      B) 100      C) 2400      D) 24400
- 7) Factors of  $49p^2 - 154pq + 121q^2$  are .....  
A)  $(7p + q)(7p - q)$       B)  $(7p + 11q)(7p - 11q)$   
C)  $(7p - 11q)(7p - 11q)$       D)  $(14p + 11q)(14p - 11q)$
- 8) The hypotenuse and one of the sides of a right angled triangle is 15 cm. and 9 cm. respectively then third side will be .....  
A) 12 cm.      B) 16 cm.      C) 15 cm.      D) 18 cm.

Rough work



9) Observe the figure find the value of 'x'.



- A) 10      B) 20      C) 30      D) 15
- 10) Meena bought a cabinet for Rs. 850 and sold it with loss of 12%, what will be its selling price ?  
 A) Rs. 748      B) Rs. 838      C) Rs.862      D) Rs. 700
- 11)  $788 \times 253 + 788 \times 247 = \dots\dots\dots$   
 A)78850      B) 39575      C) 394000      D) 39400
- 12) When two lines intersect each other, we get ..... pairs of linear pair angles.  
 A) 2      B) 3      C) 4      D) 1
- 13) Circumference of a circles is 44 cm. then its diameter is .....  
 A) 7 cm.      B) 14 cm.      C) 4.4 cm.      D) 8.8 cm.
- 14) 0.00000000074 this number is expressed in the power of 10 as .....  
 A)  $7.4 \times 10^{-10}$       B)  $7.4 \times 10^{-11}$       C)  $7.4 \times 10^{-13}$       D)  $7.4 \times 10^{11}$
- 15) The number  $399^*5$  is divisible by 15 find smallest digit at \*.  
 A) 0      B) 1      C) 2      D) 3
- 16) Write in descending order :-  $\frac{1}{2}$  ,  $\frac{2}{3}$  ,  $\frac{3}{4}$  ,  $\frac{4}{5}$   
 A)  $\frac{3}{4}$  ,  $\frac{2}{3}$  ,  $\frac{1}{2}$  ,  $\frac{4}{5}$       B)  $\frac{1}{2}$  ,  $\frac{3}{4}$  ,  $\frac{4}{5}$  ,  $\frac{2}{3}$   
 C)  $\frac{4}{5}$  ,  $\frac{3}{4}$  ,  $\frac{2}{3}$  ,  $\frac{1}{2}$       D)  $\frac{4}{5}$  ,  $\frac{2}{3}$  ,  $\frac{1}{2}$  ,  $\frac{3}{4}$
- 17) A sum doubles itself in 5 years then rate of interest is .....  
 A) 40% p. a.      B) 20% p. a.      C) 10% p. a.      D) 25% p. a.



18) Volume of a cuboid is  $2730 \text{ cm}^3$ . Its length is 15 cm and breadth is 13 cm. find its height.

- A) 14 cm.      B) 16 cm.      C) 15 cm.      D) 18 cm.

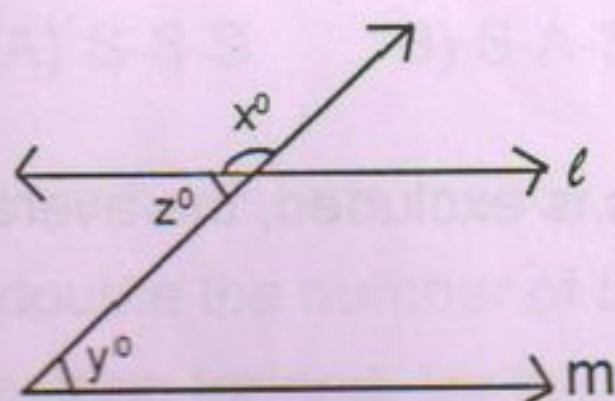
19) Side of a square ground is 85 m. The distance covered by a man going around the ground five times is .....

- A) 1.6 km.      B) 1.7 km.      C) 170 m.      D) 160 m.

20) The point of concurrence of three altitudes of an obtuse angled triangle lies .....

- A) in the interior of the triangle.  
 B) on the sides of the triangle.  
 C) in the exterior of the triangle.  
 D) On one of the vertices.

21)



In the adjoining figure, line  $l \parallel$  line  $m$  when  $x^\circ = 4y^\circ$  then value of  $z$  is .....

- A)  $36^\circ$       B)  $45^\circ$       C)  $144^\circ$       D)  $75^\circ$

22) 2,70,00,00000 are written in Indian system as .....

- A) Twenty seven crores      B) Two abja seventy crores  
 C) two seventy lakhs      D) Twenty seven crore thousand lakhs.

23)  $\begin{array}{r} 18254 \\ - 98\#5 \\ \hline 08*89 \end{array}$

Solve the example of subtraction and find the correct digits at # and \*.

- A) # = 6, \* = 3      B) # = 7, \* = 5      C) # = 3, \* = 0      D) # = 7, \* = 1

24)  $\frac{26}{11}$  can be written as

- A) 2.36      B) 1.236      C)  $2.\overline{36}$       D)  $0.\overline{236}$

25) LCM of two numbers is 588 and HCF is 14, if one of the numbers is 84 then other number is .....

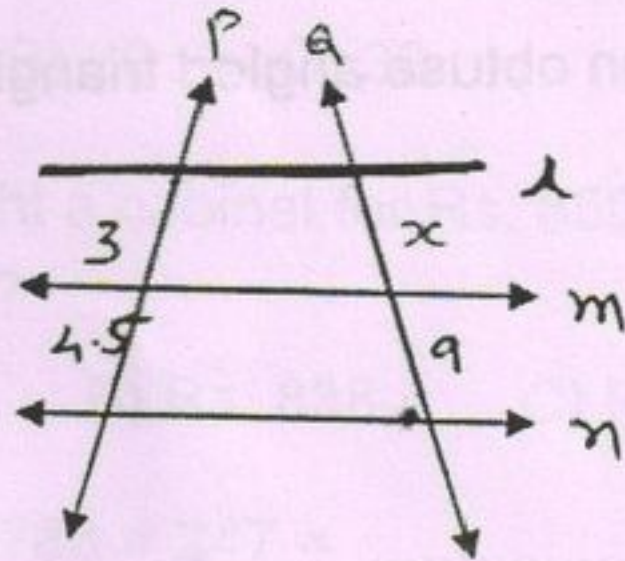
- A) 48      B) 90      C) 99      D) 98



26)  $\left[\left(\frac{4}{5}\right)^3\right]^3 \div \left[\left(\frac{4}{5}\right)^3\right]^3 = \dots\dots\dots -$

- A)  $\left(\frac{4}{5}\right)^2$     B)  $\frac{4}{5}$     C) 1    D) 0

- 27) In the figure given below line  $l \parallel$  line  $n$ . line  $p$  and line  $q$  are transversals. Observe the figure and find value of  $x$ .



- A) 6    B) 4.5    C) 5    D) 6.5

- 28) The average of five numbers is 28. If one of the numbers is excluded, the average gets reduced by 2. Find the excluded number.

- A) 28    B) 30    C) 36    D) 34

- 29) An astronomy club has 45 members out of which 20 are boys and rest are girls. The ratio of girls to boys is .....

- A) 5:4    B) 4:5    C) 4:9    D) 9:4

- 30) In twelve hours clock time is 12.00 midnight, in 24 hours clock the time will be .....

- A) 12:00    B) 00:00    C) 24:24    D) 00:12

- 31) If the diagonals of a quadrilateral are bisecting each other and have same length then the quadrilateral is .....

- A) trapezium    B) square    C) rhombus    D) kite

- 32) A does a work in 10 days and B does the same work in 15 days. In how many days they together will complete the same work ?

- A) 5 days    B) 25 days    C) 6 days    D) 8 days

33)  $7 + 7 \div 7 + 7 \times 7 - 7 = \dots\dots\dots$

- A) 63    B) 51    C) 49    D) 50



34)  $\frac{140}{500} = \dots\dots\dots\%$

- A) 40      B) 140      C) 28      D) 80

- 35) In the  $\triangle ABD$ ,  $AB = AD$ , and  $AC$  bisect  $BD$  then  
 $\triangle ABC = \triangle ADC$  by which test ?



- A) S-S-S      B) S-A-S      C) A-S-A      D) S-A-A

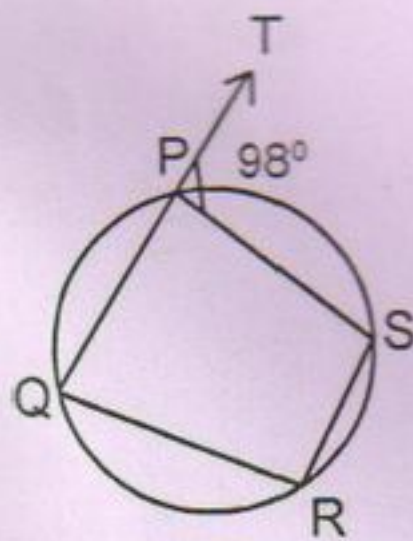
- 36) Aditya has some money, with 50 and 10 rupees notes. Number of 10 rupees notes is double the number of 50 rupee notes. If the total amount he has is Rs. 210, the equation formed for this information using  $x$  as variable is .....

- A)  $x + 2x = 210$       B)  $5x + 3x = 210$       C)  $50x + 20x = 210$       D)  $50x + 40x = 210$

37)  $XVI + IX = \dots\dots\dots$

- A) XXVI      B) XII      C) XXV      D) XVII

38)



$\angle TPS = 98^\circ$ , then find  $\angle QRS$

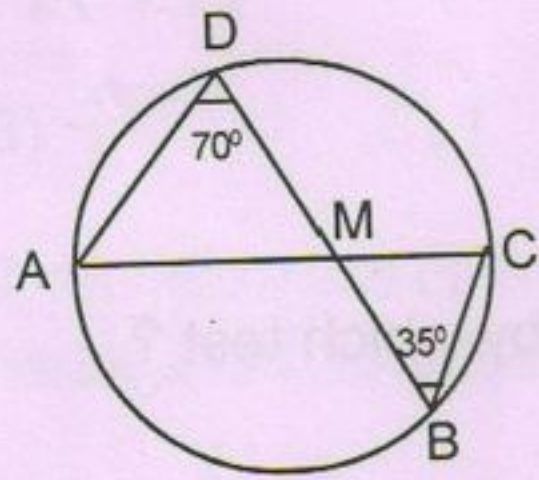
- A)  $82^\circ$       B)  $98^\circ$       C)  $102^\circ$       D) None of these

- 39) ..... quadrilateral has only one axis of symmetry.

- A) Rectangle      B) Rhombus      C) Square      D) Kite



40) In following figure  $\angle ADB = 70^\circ$ ,  $\angle CBD = 35^\circ$  then what is  $\angle AMD$  ?



- A)  $75^\circ$       B)  $65^\circ$       C)  $60^\circ$       D)  $70^\circ$

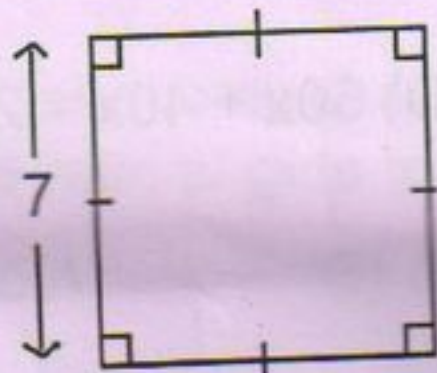
41) A TV purchased at Rs. 5000 and sold at Rs. 4000, what is loss percent ?

- A) 10%      B) 20%      C) 25%      D) 22%

42) What is to be subtracted from  $5x^3 - 7x^2 - 8x + 9$  so as to get  $3x^2 - 5x + 6$  ?

- A)  $5x^3 - 10x^2 - 3x + 3$       B)  $5x^3 - 12x^2 - 13x + 15$   
 C)  $3x^3 - 7x^2 + 5$       D)  $5x^3 - 7x^2 - 13x - 12$

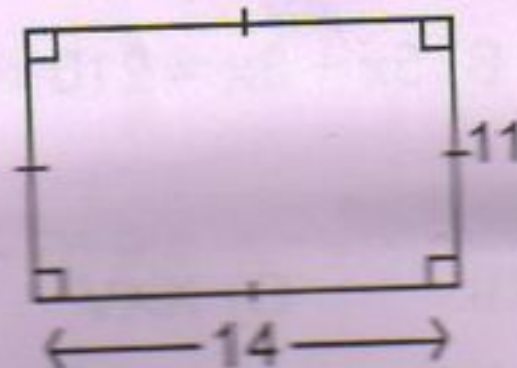
43) Which of the given figures have equal area ?



(a)



(b)



(c)

- A) a, b      B) b, c      C) a, c      D) all

44)  $(8.9)^2 + 2(8.9 \times 1.1) + (1.1)^2 = \dots\dots\dots$

- A) 10      B) 100      C) 11      D) 121

45) Sharad invested Rs. 30000 at 8% p. a. for 3 years and Vijay invested Rs. 40000 at 7% p. a. for 4 years, who will earn more and by how much ?

- A) Sharad by Rs. 4000      B) Vijay by Rs. 4000  
 C) Sharad by Rs. 5000      D) none of these

Rough work

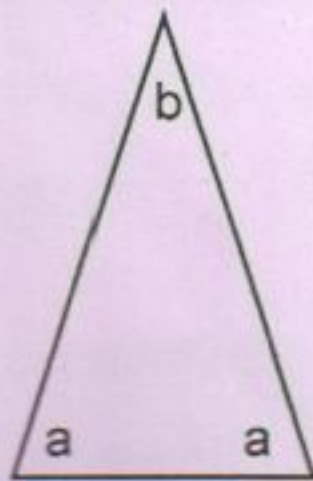


46) In the given solid figure number of edges, vertices and faces are respectively .....



- A) 18, 12, 8      B) 8, 12, 18      C) 18, 8, 12      D) 12, 8, 18

47)



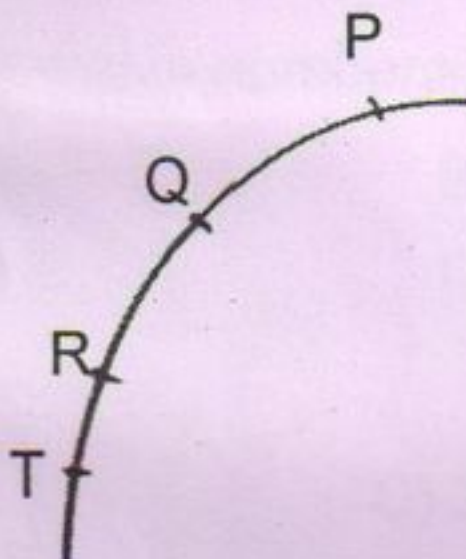
Observe the figure and if  $2a - b = 100$  then find the value of  $a$ .

- A)  $70^\circ$       B)  $140^\circ$       C)  $40^\circ$       D)  $75^\circ$

48)  $3m - 7 = 2$  then  $m =$  .....

- A) 7      B) 3      C) 2      D) 4

49) Following figure is part of circumference of a circle; points P, Q, R, T are on it. Find number of arcs formed by these points.



- A) 6      B) 4      C) 3      D) infinite

50)  $144x^3y^4z^5 \div 18x^2y^3z^4 =$  .....

- A)  $6x^2y^3z$       B)  $12xyz^2$       C)  $8xyz$       D)  $9y^2z$



Rough work