MATHS

BOOKS - CHETAN MATHS (TAMIL ENGLISH)

Model Activity Sheet

Question

1. What is the ratio of 1mm 1cm ?

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2. Yamini and fatima, two students of class X of school, togethere contribute ₹ 1500 towards the Prime minister's Relief fund to help the flood victims. Write a linear equation using two variables which satisfies the data.

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3. If T= {1,2,3,4,5,} and M= {4,5,6,7,8}, then what is T ∩ M?

4. What is the class mark of 45-55.

5. Write the following surd in simplest form.

$$\frac{-4}{5}\sqrt{75}$$

6. Find the value of $\dfrac{-4}{5}\sqrt{75}$

7. Mrs. Hinduja's age is 50 years. Last year her taxable income was rs 16,30,000. How mauch income tax she has to pay ?

8. Consider a small unit of a factory where there are employees, a superivisor ans four laboures. The labourers draw salary of rs9,000 per month each while the supervisor get rs 23,000 per month. Calculate median salary of this unit of factory.

9. If one card is draw from well shuffled deck of 52 cards, then probability of getting red face

card is.

A. $\dfrac{3}{13}$

B. $\dfrac{3}{4}$

C. $\dfrac{3}{26}$

D. $\dfrac{1}{13}$

Answer:

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10. $\sqrt{5}m^2 - \sqrt{5}m + \sqrt{5} = 0$ which of the following statement is true for this given equation ?

11. The equations

$3x - 4y = 7$ and $9x - 12y = 12$ will have

A. unique solution

B. infinitely many solution

C. no solution

D. two solution

Answer:

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12. If 28% GST was charged on a scooter having cost rs 50,000 then find the amount of CGST of charged

A. rs800

B. rs7500

C. rs14000

D. rs7000

Answer:

13. Find the 25th term of A.P12,16, 20,24, ...

14. Obtain a quadratic equation whose roots are -3 and -7.

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15. The record of a weather station shows that out of the past 250 consecutive days, its weather forecast were correct 175 times. What is the probability that on a given day it was correcrt?

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16. If x=5 is the root of a equation $kx^2 - 14x - 5 = 0,$ then find the value of K

17. Form a Road safety committee of two from 2 boys (B1,B2) and 2 girls (G1,G2). Complete the following activity to write the sample spac.

(a) Committee of 2 boys = _____

(b) Committee of 2 girls = _____

(c) Committee of one boy and one girls

B_1G_1 _____ _____ _____

∴ Sample the following = {_____, _____,

_____, _____, _____, _____}

18. Complete the following table:

	Face value	The share is at	Market value
(i)	₹ 100	discount of ₹ 15	....
(ii)	₹ 25	....	₹ 360

19. The sum of two roots of a quadratic equation is 5 and the sum of their cubes is 35. Find the equation.

20. Prashant bought 50 shares of FV $Rs100$, having MV $Rs180$.Company gave 40% dividend on the shares . Find the rate of return on investmant.

21. Medical chek-up of 180 women was conducted in a health centre in a village. 50 of them were short of haemoglobin, 10 suffered form catract and 25 had rspiratory disorders. The remaining women were healthy. Show the information in a pie chart.

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22. Fifty seeds were selected at random from each of 5 bags of seeds, and were kept under

standardised condition favourable to germination. After 20 days, the number of seeds which had germinated in each collection were conducted and as follows

Bag	1	2	3	4	5
No. of seeds germinated	40	48	42	39	41

What is the probablity of germination of

(i) More than 40 seeds in a bag.

(ii) 49 seeds in a bag

(iii) More than 35 seeds in a bag

23. $5x - 6x + 30 = 0, 5x + 4y - 20 = 0$

24. A trader from Surat, Gujrat sold cotton clothes to a trader in Rajkot, Gujarat.The taxable value of cotton clothes is $Rs 2.5$ lacs.What is the amount of Gst at 5% paid by the trader in Rajkot?

25. Find the sum of the all odd natural number from 1 to 150.....

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26. The sum of first p- terms terms of an A.P. is q and the sum of first q terms is p, find the sum of first (p + q)

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27. M/s. jay Chemicals purchased a liquid soap for rs 8000 (with GST) and sold it to the consumers for rs 10,000(withGST). Rate of GST is 18%. Find the amount of CGST and SGST to be paid by jay chemicals.

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28. The sum of father's age and twice the age of his son is 70 . If we double the age of the

father and add it to the age of his son,the sum is 95 find their present ages.

29. Grouped frefuency distribution of supply of milk to hotels and the number of hotels is given in the folllowing table. Find the mode of the supply of milk.

Milk (litre)	1 – 3	3 – 5	5 – 7	7 – 9	9 – 11	11 – 13
No. of hotels	7	5	15	20	35	18

30. In the adjoint figure, line l || line m and n is the transversal. $\angle a = 100°$. Find measure of $\angle c$

31. Write the converse of the statement. The diagona of a rectangle are congruent's Is the converse statement true?

32. "Two pairs of sides of which of the following quadrilaterals are equal? Kite, Isosceles trapezium, Rectangle.

33. A line is parallel to X axis is at distance of 4 units from X- axis. Write possible equation for this line.

34. Find

$\tan \theta$ if $\sin \theta = \dfrac{4}{5}$ and $5 \times \cos \theta = 3$.

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35. Total surface are of a cuboid is 400 cm.

Height of the cuboid is 20cm. Find the

perimeter of the base of the cuboid.

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36. Draw an equilateral ΔABC with side measuring 5cm. Find its incentre.

37. In $\Delta PQR, \angle P = 40°, \angle R = \angle P + 10°$ .Find $\angle Q$

38. Out of the dates given below which date constitutes a pythagorean triplet?

    A. $15/08/17$

    B. $16/08/17$

    C. $3/5/17$

    D. $4/9/15$

Answer:

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39. $\dfrac{\sin 35}{\cos 55} = \ldots\ldots\ldots$

A. Not possible to find

B. $\tan 55$

C. $\cot 35$

D. 1

Answer:

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40. If $A = r^2 \left[\dfrac{\pi\theta}{360} - \dfrac{\sin\theta}{2} \right]$ the A in the formula is ....

    A. Length of an arc

    B. Area of circle

    C. Area of sector

    D. Area of a segment

Answer:

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41. Slope of a line parallel to X axis is

A. 1

B. 0

C. Not defined

D. None of the above.

Answer:

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42. A circle with centre 'O' and radius 12cm has chord AB. $\angle AOB = 30°$. Find $A(\triangle AOB)$.

43. In the adjoining figure, ray PQ touches the circle at point Q. Line PRS is a secant, If P=12, PR=8 then PS and RS

44. In$\triangle ABC$, ray BD bisects $\angle ABC$, $A - D - C$, Side DE|| Side BC. A-E-B. then prove that AB:BC=AE:EB

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45. In the adoining figure, A is the centre of the circle. Poin D is in the exterior of the circle. Line DP and Line DQ are tangents at points at P and Q respectively. Prove that DP=DQ.

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46. Draw a circle with centre P and radius 3.5 cm. Take a point A on it. Draw a tangent at tangents at point A.

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47. Find the coordinates of centroid of a triangle whose vertices are(3-5), (4,3),(11,-4).

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48. If $\tan\theta + \dfrac{1}{\tan\theta} = 2$, then show that $\tan^2\theta + \dfrac{1}{\tan^2\theta} = 2.$

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49. A person is standing at a distance of 80 m from a church looking at its top. The angle of elevation is of $45°$. Find the height of the church.

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50. In the adjoining figure, seg AB is a chord of a circle with centre P. If PA=8cm and distance of the chord of from the centre P is 4cm. Find the area of the shaded portion.

51. $\triangle ABC \sim \triangle PQR$, in $\triangle ABC$, AB=5.4cm,BC=4.2cm,AC=6.0cm, AB:PQ=3:2. Construct $\triangle ABC$ and $'\triangle PQR$

52. Prove that the sum of the squares of the diagonals of rhombus is equal to the sum of the squares of the sides.

53. Seg MN is a chord of a circle with centre O. MN such that ML =9 and d(O,L)=5. Find the radius of the circle.

54. In the adjoining figure, seg PQ|| seg DE,A $(\triangle PQR) = 20$units, PF=2DP, then find $A(\square DPQE)$.

55. If two lines are perpendicular to each other then product of its slopes is '-1'. Find the slope

of a line which is perpendicular to line AB if

A(3,0) and B(0,2).

56. Volume of with uniform cross-section are is given by area of base xx height. Find the volume of a hexagonal prism whose base has each side measuring 6 cm. and height is $\dfrac{4}{\sqrt{3}}$ cm. (Hint: Area of regular hexagon $= 3\dfrac{\sqrt{3}}{2} \times side^2$)