Question Bank   MATHEMATICS

Class-VIII

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Q-1 The value of a refrigerator which was purchased two years ago depreciates at 12% p.a. if its present value is Rs 9680,for how much was it purchased?

Q-2 Ms Nidhi let out Rs 400000 for 1 year at 16% compounded annually. How much they could earn if the interest is compounded (i) half-yearly (ii) quarterly?

Q-3 Find the C.I on Rs 1000 for 18 months at 10% p.a. compounded half-yearly?

Q-4 The simple interest on a certain sum of money for 3 years at 5% per annum is Rs 540 what will be the compound interest on that sum at the same rate for the same period?

Q-5 If ABCD is a quadrilateral in which   AB || CD and ABIICD , Then show that it is parallelogram?

Q-6 ABCD is a parallelogram in which the diagonals bisect each other at right angle.show that it is a rhombas?

Q-7 ABCD is a parallelogram.AP bisects angle A and CQ bisects angle C.P lies on CD and Q lies on AB. Show that

(1) APIICQ
(2) AQCP is a parallelogram

Q-8 The diagonals of a rtangle ABCD interest in 0.If angle BOC = 68 degree find angle ODA

Q-9 Verify Eculers formula for

(1)   Square pyramid
(2)   Triangular prism

Q-10 Can a polyhedron have 154 faces,20 edges and 10 vertices?

Q-11 An iron pipe is 21m long and its exterior diameter is 8cm.if the thickness of the pipoe is 1cm and iron weight 8g/cm3. Find the weight of pipe

Q-12 Two trains start simulating from 2 station 300 m apart and move towards each other by 20 km/hr. if the distance between the trains after two hours is 20km,find the speed of train?

Q-13 A rectangular sheet of paper 88cm X 10 cm is rolled along its length and a cylinder is formed. Find the volume of the cylinder so formed?

Q-14 A cylinder of curved surface area is 1250m square.is formed from a rectangular metallic sheet find the dimension of the rectangular sheet if its length is double its breadth?

Q-15 A cubical box with lid has a length of 30cm . find the cost of painting the inside and outside of the box at Rs 2 per m square?

Q-16 Find the area of a trapezium whose parallelsides are 25cm,13cm and other sides are 15cm each?

Q-17 The area of a trapezium is 24 m square and I ts heightis 8cm.If one of the parallel side is smaller than the other by 4cm , find two parallel sides?

Q-18 Area of trapezium is 176cm square . The distance between parallel sides is 10 cm . Find the other

Q-19 A pair of adjacent sides of a rectangle are in ratio 3:4. If its diagonal is 20cm, find the perimeter of the rectangle.

Q-20 The population of a village is 20000 I f the annual birth rate is 4% and the annual death rate is 2%,calculate the population after 2 years?

Q-21 Solve

a) $\dfrac{17(2\text{-}x)\text{-}5(x+12)}{1\text{-}7x} = 8$

b) $\dfrac{3x}{4} - \dfrac{(x\text{-}1)}{2} = \dfrac{(x\text{-}2)}{3}$

Q-22 Solve

$(2^{3x-1}+10) \div 7=6$

Q-23 $3^{x-1}=9^{x-2}$

Q-24 check whether $(3x-2)$ is a factor of the polynomial $3x\ (5x^2+3x^3+2)-(2x^2-x+8)$.

Q25 divide $x^4-3x^3-4x^2+3x+2$ by x^2+1 and also check your answer.

Q26 $(2^{-1}-3^{-1})^{-1}$ is equal to---------------

Q-27 Name 2 fig using both line symmetry and voltational symmetry.

Q-28 In word ''DAUGHTER'' , which letter shows rational symmetry and what is the angle of rotation of that letter.

Q-29 List two letters of English alphabet which exhibit both line as well as rational symmetry.

Q-29 Area of square is 49 cm. Find its perimeter.

Q-30 If $7^x=343$, then x is equal to_____

   (a) 7   (b) 0   (c) 49   (d) 3

Q-31 Value of $(6^2+8^2)^{1/2}$ is

Q-32 If the population of a town is increased by 20% in the first year,decreased by 20% in second year then the population will become after 2 years.

Q-33 Which of the following is not a monomial ?

   (a) 6x   (b) 16xyz÷2   (c) $3x^2+5$ (d) $8x^2 \div 6x$

Q-34 If $\underline{x+7}$ =2, then value of x is

            2

(a) 11   (b) 5   (c) -3   (d) 3

Q-35 Which of the following is not a property of rhombus ?

(a) All sides are equal   (b) Diagonals bisect each other

(c) Diagonals are equal   (d) Diagonals are perpendicular to each other.

Q-36 Which of the following statement are false ?

   (a) Opposite sides of a parallelogram are equal
   (b) Diagonals of a square are equal
   (c) In a rectangle Diagonal intersect at right angle
   (d) In a square each angle is 90 degree

Q-37 What is the order of rotation for a square ?

   (a) 2   (b) 1   (c) 4   (d) 3

Q-38 Find the amount of Rs. 8000 at 5% per quarter for 6 months compounded quarterly.

Q-39 Find the value of $\dfrac{27^{-2/3} \times 81^{5/4}}{(1/3)^{-3}}$

Q-40 Verify the Euler's formula for Triangular Prism?

Q-41 In the word 'MATHS' which letter shows rational symmetry and what is the order of rational symmetry?

Q-42 What sum of money amount Rs. 5832 in 2 years at 8% p.a. Compounded annually.

Q-43 Using long division method Divide (x^4-16) by $(x+2)$ and write down the quotient and remainder.

Q-44 Construct a Quadilateral ABCD in which AB=4cm , BC=3cm , CD=3.5 cm and Diagonals are AC=6cm and BD=5.5cm.

Q-45 The present ages of Ram and Rahim are in the ratio 4:3. 4 years later , their ages will be in the ratio 6:5 . What are their present ages?

Q-46 Draw an equilateral triangle ΔABC and show with help of figures how it shows rational symmetry. What is the angle of rotation and order of rotation.

Q-47 I borrowed Rs. 12000 from Jamshed at 6% p.a. simple interest for 2 years.Had I borrowed this sum at 6% p.a. compound interest , what extra money would I have to pay?

Q-48 Construct a Quadilateral ABCD in which AB=4cm , BC=3cm , CD=4.5cm , angle B=105^0 , angle C=80^0 .

Q-49 If x=$(3/2)^2$x$(2/3)^{-4}$, find x^{-1}.

Q-50 An iron pipe is 21 m long and and its exterior diameter is 8 cm . If the thickness of pipe is 1cm and iron weight 8 g/cm^3 , find the weight of pipe.

Q-51 A well is dug 20 m deep and has a diameter 7m . The earth which is so dug out is spread evenly on a rectangular plot 22m long and 14 m broad. What is the height of the platform formed?