Kendriya vidyalaya IIT PATNA

WINTER BREAK HOLIDAY HOMEWORK (2024-25)

CLASS – 6TH (MATHEMATICS)

1. REVISE FROM CHAPTER 4 TO CHAPTER 8 .

2. COMPLETE YOUR NOTEBOOK, MDP AND LEARNER DIARY.

3. LEARN TABLES FROM 1 TO 20 .

ACTIVITIES:

A. SOLVE 2 SUDOKU PUZZLE.

B. CREATE YOUR OWN SIMPLE MATHS PUZZLE WITH SOLUTION.

PROJECT WORK:

CREATE A 2D OR 3D MODEL OF A CITY USING GEOMETRIC SHAPE SUCH AS TRIANGLE, RECTANGLE, CIRCLE ETC.

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Q1.. Zero has ….. Reciprocal.

Q2. Multiplicative identity of $\frac{5}{7}$ is …. ….….

Q 3.   Represent the following rational numbers on number line:

(a) $\frac{3}{5}$ 2. $-\frac{9}{4}$

Q4. Insert 5 rational numbers between 1/3 and 2/3.

Q5. Write the additive inverse of each of following-

(a) 4/5   (b) -8/7

Q6. Write the following numbers in standard form- 1)   34500000   2) 24567.789

Q7. Which rational number is greater in $\frac{-3}{7}, \frac{-5}{9}$

Q8. Write four rational number equivalent to $\frac{-3}{7}$.

Q9. Simplify the followings

(i) $\frac{3}{4} + \frac{-2}{3} + \frac{1}{2}$ (ii) $(\frac{-9}{15} \div \frac{27}{60}) \times \frac{5}{16}$

Q10. Divide: (i) 0.058 by 100   (ii) 0.08085 by 0.35

Q11. Simplify

(i) 2x(4-x)+3x(x+4)   2)   x(x-5)+3x(3+4x)

3) 4(2x-9)   4)   4x(8x-6)+6

Q12. Find value of expression at x=2

(a)   2x(5x-20)   2)   4x(5+7x)

Q13.   Find the perimeter and area of a square of side 14cm.

Q14. Find the perimeter and area of a rectangle of length 12cm and breadth 10cm.

Q15. Find the circumference of a circle of radius 8cm.

Q16. Find the area of a circle of radius 12cm.

Q17. If the radius of a circle is 25cm, what will be its diameter?

Q18. If the diameter of a circle is 24cm, what will be its radius ?

Q19. Ramesh has taken 5 rounds of a circular park of diameter 12cm, how much distance he has covered ?

Q20. The perimeter of a rectangular park is 260m, if its length is 25cm . what will be its breadth and area.

CLASS-8TH, SUBJECT- MATHS

1. Write and learn the laws of exponents & powers

2. Draw and write the area and perimeter of the following shapes

   Rectangle, Square, triangle, parallelogram and circle

3. Draw the following solid shapes and write LSA, TSA and volume of the following

Cube, cuboid and cylinder.

4. Revise Chapters for Periodic Test 2

5. **Crossword Number Puzzle**

Solve the given crossword and then fill up the given boxes. Clues are given below for across as well as downward filling. Also for across and down clues clue number is written at the corner of boxes. Answers of clues have to be filled in their respective boxes.

Down

1. A polynomial with two terms.

2. An expression containing one or more terms with non-zero coefficient (with variables having non-negative exponents).

3. To find the value of a mathematical expression.

4. A _____ is formed by the product of variables and constants.

5. The abbreviation of the greatest no. (or expression) that in a factor of two or more numbers.

6. A polynomial with three terms.

Across

7. A polynomial with only one term.

8. An expression of the second degree.

9. Terms can be written as product of its _____.

10. The numbers –3, –2, –1, 0, 1, 2, 3 are known as _____.

11. _____ terms are formed from the same variables and the powers of these variables are the same term.

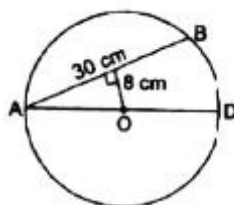12. The highest power of a polynomial is called the _____ of the polynomial.
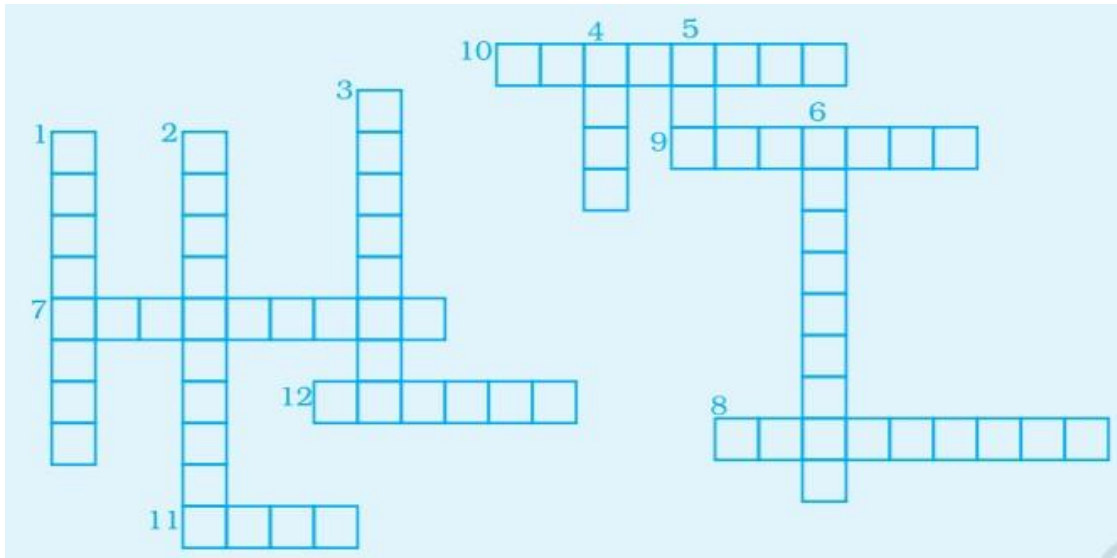
1. If O be the centre of the circle, find the value of x in each of the following figures.
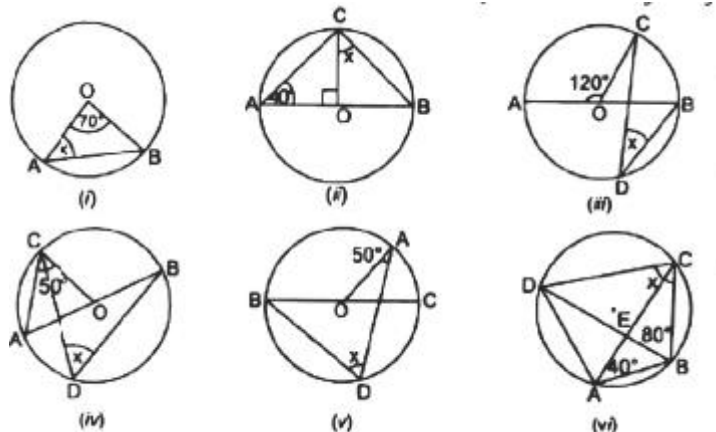
2. AD is a diameter of a circle and AB is a chord. If AB = 30 cm and its perpendicular distance from the centre of the circle is 8 cm, then what is the length of the diameter AD?

3. A circle of 30 cm diameter has a 24 cm chord What is the distance of the chord from the centre?

4. A chord AB of a circle with centre O is 10 cm. If the chord is 12 cm away f om centre, then what is the radius of the circle?

5. If the diameter AD of a circle is 34 cm and the length of a chord AB is 30 cm. What is the distance of AB from the centre?

6. What is the length of a chard which is at a distance of 4 cm from the centre of a circle of radius 5 cm?

7. If the radius of a circle is 13 cm and the length of its chord is 10 cm then what is the distance of chord from the centre?

8. If the distance of 10 cm long chord from the centre of the circle is 12 cm then what is the diameter of the circle?

9. In the figure. AB and CD are two chords of a circle with centre O, such that C, O, D are collinear and $AB = \frac{1}{3}CD$. If AB = 3 cm, then what is the radius of the circle?
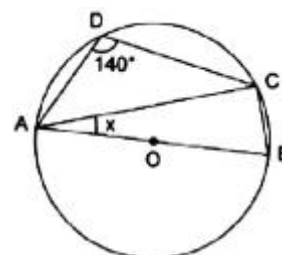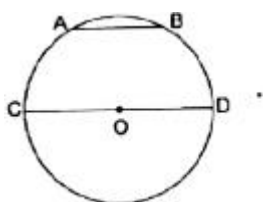
10. In the figure, O is the centre of the circle. If ∠ADC = 140°, then what is the value of x?

(i) 45°
(ii) 55°
(iii) 60°
(iv) 45°

11. find the surface area and volume of a sphere of radius 7cm.
12. Find the surface area and volume of a hemisphere of diameter 16 cm.
13. Find the total surface area of a cone of radius 6cm and height 10cm.
14. Find the total surface area of a cylinder of radius 8cm and height 12cm.
15. Find the volume of a cylinder of radius 4cm and height 14cm.

REVISE FOR PT-3 EXAMS.