

Home Work

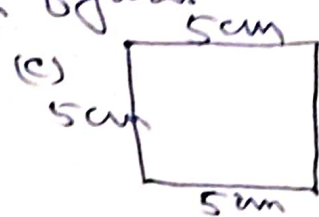
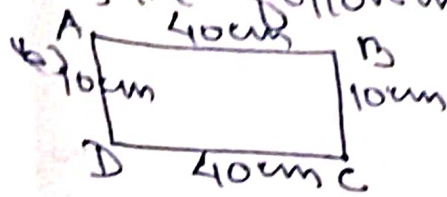
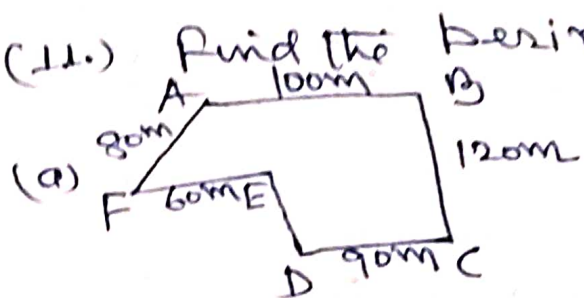
Class-VI (Winter Break)

1. Which is greater -
(i) 0.5 or 0.05 (ii) 1.23 or 1.2 (iii) 1.431 or 1.490
2. Express as rupees using decimals -
(i) ~~Anna~~ 75 Paise (ii) 725 Paise (iii) 50 rupees 90 Paise
3. Express as km using decimals
(i) 88 m (ii) 8888 m. (iii) 70 km 5 m.
4. Express as kg using decimals -
(i) 3750 g (ii) 125 gram (iii) 5 kg 8 g.
5. Find the Sum —
(a) $27.076 + 0.55 + 0.004$ (b) $15 + 0.632 + 13.8$
6. Rashid spent Rs 35.75 for maths book and Rs 32.60 for science book. Find the total amount spent by Rashid.
7. Sumita travelled 15 km 268 m by bus, 7 km 7 m by car and 500 m on foot in order to reach the school. How far is her school from her residence?
8. Rani had Rs 18.50. She bought one ice-cream for Rs 11.75. How much money does she have now?
9. Raju bought a book for Rs 35.65. He gave Rs 50 to the shopkeeper. How much money did he get back from the shopkeeper?
10. In a mathematics test, the following marks were obtained by 40 students.
Arrange these marks in a table using tally marks

Tally marks									
8	1	3	7	6	5	5	4	4	2
4	9	5	3	7	1	6	5	2	7
7	3	8	4	2	8	9	5	8	6
	4	5	6	9	6	4	4	6	6

- (a) Find how many students obtained marks equal to or more than 7?
- (b) How many students obtained marks below 4?

(11.) Find the perimeter of the following figures



(12.) Find the perimeter of a regular Pentagon is 100 cm. How long is its each side.

(13.) Find the Cost of fencing a Square Park of side 250 m at the rate of rupees 20 per m.

(14.) What is the cost of tiling a rectangular plot of land 500m long and 200m wide at the rate of Rs 8 per hundred sq. m.?

(15.) The area of a rectangular garden 50 m long is 3000 sq. m. Find the width of the garden.

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Holiday Home-work Class - VII, (Winter break)

- (1) Classify into monomials, binomials and trinomials
 (i) $4y - 7z$ (ii) y^2 (iii) $x + y - xy$ (iv) 100 (v) $ab - a - b$
 (vi) $5 - 3t$ (vii) $4p^2q - 4pq^2$ (viii) $7mn$ (ix) $z^2 - 3z + 8$
 (x) $a^2 + b^2$ (xi) $z^2 + z$ (xii) $1 + x + x^2$

(2) Identify like terms in the following:

(a) $-xy^2$, $-4yx^2$, $8x^2$, $2xy^2$, $7y$, $-11x^2$, $-100x$
 $-11yx$, $20x^2y$, $-6x^2$, y , $2yx$, $3x$.

(3) Simplify the expressions and find the value of the expression if x is equal to 2.

(i) $x + 7 + 4(x - 5)$ (ii) $3(x + 2) + 5x - 7$
 (iii) $6x + 5(x - 2)$ (iv) $4(2x - 1) + 3x + 1$

(4) Simplify the expression and find its value when $a = 5$, $b = -3$
 $2(a^2 + ab) + 3 - ab$.

(5) Express each of the following as a product of powers of their prime factors:

(a) 648 (b) 405 (c) 540 (d) 3600

(6) Simplify:-

(i) $\frac{2^3 \times 3^4 \times 4}{3 \times 52}$ (ii) $\frac{3 \times 7^2 \times 11^8}{21 \times 11^3}$ (iii) $[(5^2)^3 \times 5^4]^3 \div 5^6$
 (iv) $2^0 \times 3^0 \times 4^0$ (v) $(3^0 + 2^0) \times 5^0$ (vi) $\frac{4^5 \times 9^8 \times b^3}{4^5 \times 9^5 \times b^2}$

(6) Express each of the following as a product of prime factors only in exponential form

(i) 108×192 (ii) 729×64 (iii) 768.

(7) Simplify: (a) $\frac{25 \times 5^2 \times 4^8}{10^3 \times 4}$ (b) $\frac{3^5 \times 10^5 \times 25}{5^7 \times 6^5}$

(8) List five rational numbers between
i) -1 and 0 , ii) $-\frac{4}{5}$ and $-\frac{2}{3}$

(9) Give four rational numbers
equivalent to $-$

i) $-\frac{2}{7}$, ii) $-\frac{5}{3}$, iii) $\frac{4}{9}$

(10) Rewrite the following rational numbers
in the simplest form $-$

i) $-\frac{8}{6}$ ii) $\frac{25}{45}$ iii) $-\frac{44}{72}$ iv) $-\frac{8}{10}$

(11) Find i) $\frac{7}{24} - \frac{17}{36}$ ii) $\frac{2}{10} \times (-9)$

iii) $-\frac{8}{19} + (-\frac{2}{57})$ iv) $-\frac{6}{5} \times \frac{9}{11}$

v) $-2\frac{1}{9} - 6$ vi) $-\frac{7}{12} \div (-\frac{2}{13})$

(12) If the circumference of a circular
sheet is 154 m, find its radius. Also
find the area of the sheet ($\pi = \frac{22}{7}$)

(13) How many times a wheel of radius
 28 cm must rotate to go 352 m? ($\pi = \frac{22}{7}$)

(14) From a circular sheet of radius 4 cm,
a circle of radius 3 cm is removed. ~~for~~
find the area of the remaining sheet.

Holiday Home-work (Winter Break)

Class - VIII, Sub: Maths.

Solve all the following questions -

- (1.) Subtract: $4a - 3ab + 3b + 12$ from $12a - 9ab + 5b - 3$
- (2.) Add: $l^2 + m^2$, $m^2 + n^2$, $n^2 + l^2 + 2lm + 2mn + 2nl$.
- (3.) Obtain the product of (i) $2, 4y, 8y^2, 16y^3$
(ii) $m, -mn, mn, p$.
(iii) $(-\frac{10}{3}p^2q^3)(\frac{6}{5}p^3q)$
- (4.) Simplify: $a(a^2 + a + 1) + 5$ and find its value for (i) $a = 0$, (ii) $a = 1$
- (5.) Simplify:- (i) $(x^2 - 5)(x + 5) + 25$
(ii) $(a^2 + 5)(b^2 + 3) + 5$ (iii) $(x + y)(x^2 - xy + y^2)$
- (6.) The area of a trapezium is 34 cm^2 and length of one of the parallel sides is 10 cm and its height is 4 cm . Find the length of the other parallel sides.
- (7.) The diagonal of a rhombus are 7.5 cm and 12 cm . Find its area.
- (8.) The floor of a building consists of 3000 tiles which are rhombus shaped and each of its diagonals are 45 cm and 30 cm in length. Find the total cost of polishing the floor if the cost per m^2 is Rs 4.
- (9.) A closed cylindrical tank of radius ~~3m~~ 7 m and height 3 m is made from a sheet of metal. How much sheet of metal is required?
- (10.) A road roller takes 750 complete revolutions to move once over to level a road. Find the area of the road if the diameter of road roller is 84 cm and length is 1 m .

(11.) Find the height of the cylinder whose volume is 1.54 m^3 and diameter of the base is 140 cm

(12.) A milk tank is in the form of cylinder whose radius is 1.5 m and length is 7 m . Find the quantity of milk in litres that can be stored in the tank.

(13.) Find the value of —

(i) $(3^0 + 4^{-1}) \times 2^2$

(ii) $(\frac{1}{2})^{-2} + (\frac{1}{3})^{-2} + (\frac{1}{4})^{-2}$

(iii) $\{(-\frac{2}{3})^{-2}\}^2$

(iv) $\frac{8^{-1} \times 5^3}{2^{-9}}$

(v) $(5^{-1} \times 2^{-1}) \times 6^1$

(14.) Find the value of m for which
$$5^m \div 5^{-3} = 5^5$$

(15.) Simplify:-

(i) $\frac{25 \times t^{-4}}{5^{-3} \times 10 \times t^{-8}} \quad (t \neq 0)$

(ii) $\frac{3^5 \times 10^{-5} \times 125}{5^{-7} \times 6^{-5}}$

(16.) Express the following numbers in standard form —

(i) 0.00000000000085

(ii) 0.000000000000942

(iii) 31860000000

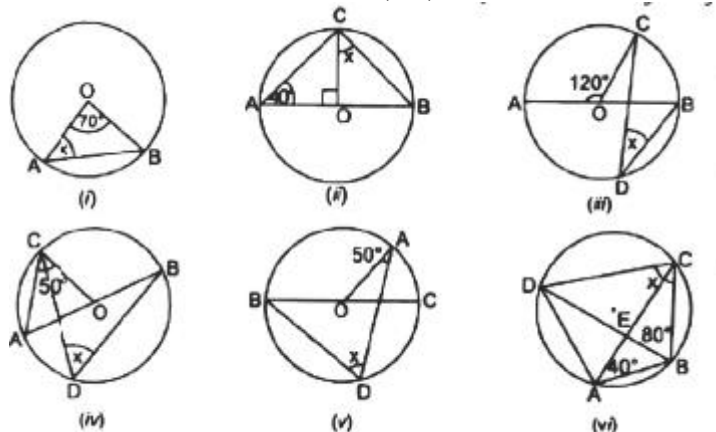
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KENDRIYA VIDYALAYA JHAJHA

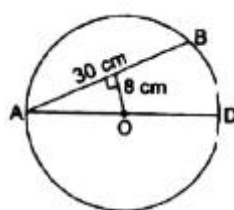
WINTER BREAK HOLIDAY HOMEWORK

CLASS-9TH, SUBJECT- MATHS

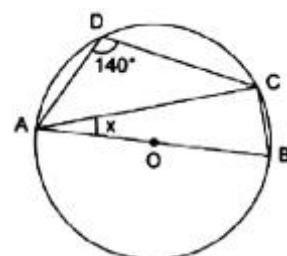
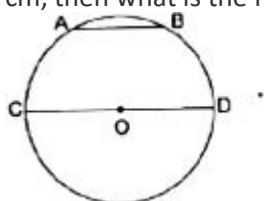
1. If O be the centre of the circle, find the value of x in each of the following figures.



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?



- A circle of 30 cm diameter has a 24 cm chord. What is the distance of the chord from the centre?
- A chord AB of a circle with centre O is 10 cm. If the chord is 12 cm away from centre, then what is the radius of the circle?
- 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?
- What is the length of a chord which is at a distance of 4 cm from the centre of a circle of radius 5 cm?
- 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?
- 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?
- 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 $\angle ADC = 140^\circ$, 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.