KENDRIYA VIDYALAYA NO.2, AFS KALAIKUNDA

CLASS 6 MATHS WINTER BREAK HOLIDAY HOMEWORK

Q.1. The perimeter of a rectangle with length 50 cm and breadth 25 cm is

   a) 1250 cm.   b) 150 cm.   c) 75 cm.   d) none of these.

Q.2. The equivalent fraction of 64/56 with denominator 7 is

   a) 6/7   b) 9/7   c) 7/8   d) 8/7.

Q.3. The decimal form of 30+8+(4/100) is

   a) 38.4   b) 38.04   c) 380.4   d) 3.80

Q.4. The perimeter of a regular octagon is 136 cm its side will be

   a) 7 cm.   b) 34 cm.   c) 17 cm.   d) 27 cm.

Q.5. The algebraic expression for 7 subtracted from 5 times p is

   a) 7-5p   b) 5p-7   c) 7p-5   d) 5-7p

Q.6. Find the area of the rectangle whose length is 15cm breadth is 12 cm.

Q.7. Write 8 using tally marks.

Q.8. Write 4/5 in decimal.

Q.9. Express as km using decimals. 70km 5m.

Q.10. Naresh walked 2 km 35 m in the morning and 1 km 7 m in the evening. How much   distance did he walk in all?

Q.11. Ila read 25 pages of a book containing 100 pages. Lalita read 2/5 of the same book. Who read less?

Q.12. Leela is Radha's younger sister. Leela is 4 years younger than Radha. Can you write Leela's age in terms of Radha's age? Take Radha's age to be x years.

Q.13. Split the following shape into rectangles and find the area. (The measures are given in centimetres)
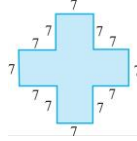
Q.14. What is the cost of tiling a rectangular plot of land 500 m long and 200 m wide at the rate of Rs.8 per hundred sq m.?

Q.15. How many tiles whose length and breadth are 12 cm and 5 cm respectively will be needed to fit in a rectangular region whose length and breadth are respectively 100 cm and 144 cm.

Q.16. Following is the choice of sweets of 30 students of Class VI.
Ladoo, Barfi, Ladoo, Jalebi, Ladoo, Rasgulla, Jalebi, Ladoo, Barfi, Rasgulla, Ladoo,
Jalebi, Jalebi, Rasgulla, Ladoo, Rasgulla, Jalebi, Ladoo, Rasgulla, Ladoo, Ladoo,
Barfi, Rasgulla, Rasgulla, Jalebi, Rasgulla, Ladoo, Rasgulla, Jalebi, Ladoo.
(a) Arrange the names of sweets in a table using tally marks.
(b) Which sweet is preferred by most of the students?

Q.17. Aakash bought vegetables weighing 10 kg. Out of this, 3 kg 500 g is onions, 2 kg 75 g is tomatoes and the rest is potatoes. What is the weight of the potatoes?

Q.18. Oranges are to be transferred from larger boxes into smaller boxes. When a large box is emptied, the oranges from it fill two smaller boxes and still 10 oranges remain outside. If the number of oranges in a small box are taken to be x, what is the number of oranges in the larger box?

Q.19. The sale of electric bulbs on different days of a week is shown below :

Observe the pictograph and answer the following questions :
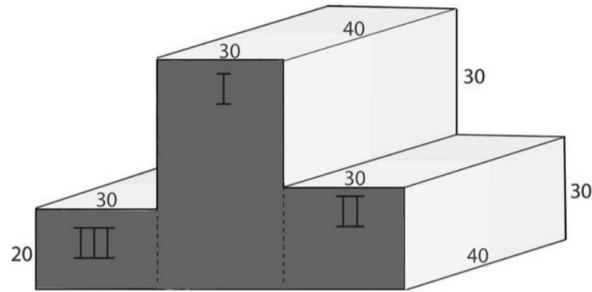
a)How many bulbs were sold on Friday?
(b) On which day were the maximum number of bulbs sold?

c) On which of the days minimum number of bulbs were sold?
d) If one big carton can hold 9 bulbs. How many cartons were needed in the given week?

Q.20.

The figure above shows a victory stand. All dimensions are given in cm.

(a) Calculate the perimeter of the shaded region.

(b) Find the area of the shaded region. Show your working.

KENDRIYA VIDYALAYA NO-2, A.F.S., KALAIKUNDA

CLASS – VII   **SUBJECT -MATHS**

1.The sum of the rational number -5/16 and 7/12 is

   a) **-7/48**   b) **-11/30**   c) **13/48**   d) **1/3.**

2. The base in the area of parallelogram is

   a) **area/ height**   b) **height/area**   c) **area X base**   d) **area X height.**

3. Subtract 6xy from -12xy

4. Find the sum of   -9/10 + 22/15.

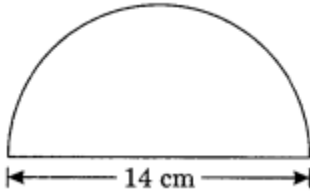**5. Find the circumference of the circle of radius 28 mm.**

6. Find the ratio of 2 hours to 160 minutes

7. Find a number whose $6\frac{1}{4}$% is 12.

8. What sum of money lent out at 12 per cent p.a. simple interest would produce ₹ 9000 as interest in   2 years?

9. Insert five rational numbers between – 2/3 and -1.

10. Find the perimeter of the figure given below.

11. Simplify the following expression and then find the numerical values for x = -2.

$3(2x − 4) + x^2 + 5.$

12. A picnic is being planned in a school for class VIII to visit Mangata wildlife Park. Number of girls is 60% of the total number of students who were going for picnic. The number of girls who are going for picnics only 24. The picnic site is 60 km from the school and the transporting company is charging at the rate of ₹12 per km.   The total cost of refreshment is ₹4280.

      Q 1   The number of boys going for picnic is
         a.16   (b) 40 (c)24   (d) 60
     Q 2   How many students went to picnic?

     Q 3   What is the cost of refreshment per head for picnic

13. The weight of 3/4 of a box of apples containing apples each of same weight is 3 kg. There are 8 apples in 1kg and the cost of 1 kg of apples is ₹ 80

Question 1: If 3/4 of a box of apples weighs 3 kg, how much does a full box of apples weigh?

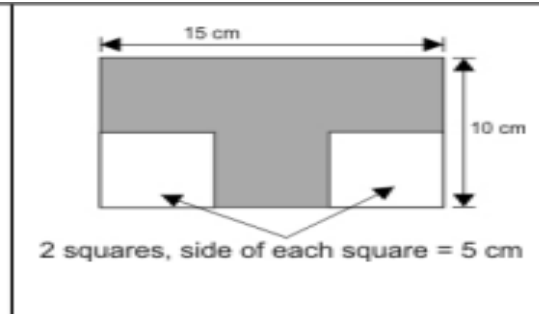   **A)3kg   (b) 4kg (c) 5kg   (d) 6kg.**

Question 2: If the cost of 1 kg of apples is Rs 80, then find the total cost of apples in a full box of apples?

Question 3: If each apple of the box has same weight and there are 8 apples in 1kg,then find the number of apples in the box?

14.

What is the area of the shaded part in the figure shown?

15.

Description of item: Three women Rita ,Tara and Sneha owned a plot each in their village. Rita and Tara owned square pieces of land and Sneha a rectangular one. Rita observed the following while farming-
   a) Tara's plot was 5 m longer than hers
   b) Sneha's plot was 3 m longer on one side and 2m longer on the other side as compared to her plot.

Q 1. The dimensions of the three plots of land are tabulated algebraically. See the table and arrange them in proper order as per the above information .

RITA	$(x + 3)$ and $(x + 2)$
TARA	x , x
SNEHA	$(x + 5), (x + 5)$

5

Q 2. Based on the answer to Question 1, can you find out whose land has more area?

16.

Express $\frac{3}{4}$ as a rational number with denominator:

(i) 36

(ii) – 80

17. A wire of length 176 cm is first bent into a square and then into a circle. Which one will have more area?

18. Subtract the sum of $-3x^3y^2 + 2x^2y^3$ and $-3x^2y^3 - 5y^4$ from $x^4 + x^3y^2 + x^2y^3 + y^4$.
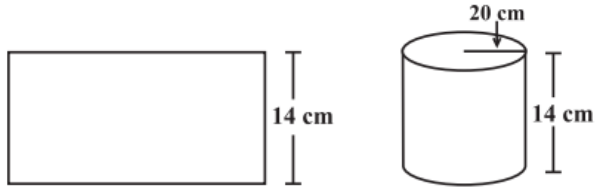
1	If $\frac{7}{3}\%$ of a number is 42, then the number is (a) 9800 (b) 8 (c) 1800 (d) 180
2	The value of $3^5 \div 3^{-6}$ is (a) 3^5 (b) 3^{-6} (c) 3^{11} (d) 3^{-11}
3	$\left(-\frac{5}{7}\right)^{-5}$ is equal to (a) $\left(\frac{5}{7}\right)^{-5}$ (b) $\left(\frac{5}{7}\right)^{5}$ (c) $\left(\frac{7}{5}\right)^{5}$ (d) $-\frac{7}{5}^{5}$
4	A perfect square can never have the following digit at ones place. (a) 1 (b) 6 (c) 5 (d) 3
5	Observe the following tables and find which pair of variables (here x and y) are in inverse proportion. (i) <table><tr><td>x</td><td>50</td><td>40</td><td>30</td><td>20</td></tr><tr><td>y</td><td>5</td><td>6</td><td>7</td><td>8</td></tr></table> (ii) <table><tr><td>x</td><td>100</td><td>200</td><td>300</td><td>400</td></tr><tr><td>y</td><td>60</td><td>30</td><td>20</td><td>15</td></tr></table> (iii) <table><tr><td>x</td><td>90</td><td>60</td><td>45</td><td>30</td><td>20</td><td>5</td></tr><tr><td>y</td><td>10</td><td>15</td><td>20</td><td>25</td><td>30</td><td>35</td></tr></table>

6	Add $5m(3 - m)$ and $6m^2 - 13m$
7	The diagonals of a rhombus are 7.5 cm and 12 cm. Find its area Or Find the side of a cube whose surface area is 600 cm^2 .
8	Using identity, evaluate 99^2.
9	Show that $(a - b) (a + b) + (b - c) (b + c) + (c - a) (c + a) = 0$
10	By which smallest natural number should 1188 be divided so that the quotient is a perfect cube? OR Find the smallest number by which 243 must be multiplied to obtain a perfect cube.
11	Find the value of m for which $5^m \div 5^{-5} = 5^7$.
12	Find a Pythagorean triplet in which one member is 12.
13	Find the $(6x^2 - 5y)^2$ squares by using the identities.
14	A table marked at Rs. 15,000 is available for Rs.14,400. Find the discount given and the discount per cent.
15	Is 2352 a perfect square? If not, find the smallest multiple of 2352 which is a perfect square. Find the square root of the new number.
16	Two people could fit new windows in a house in 6 days. (i) One of the persons fell ill before the work started. How long would the job take now? (ii) How many people would be needed to fit the windows in one day?

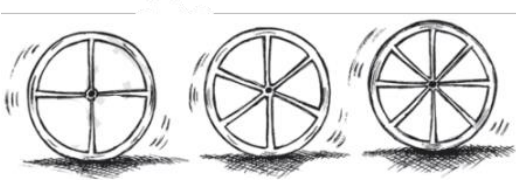| 17	A rectangular paper of width 14 cm is rolled along its width and a cylinder of radius 20 cm is formed. Find the volume of the cylinder. (Take 22/7 for π) 20 cm 14 cm 14 cm

18	A train is moving at a uniform speed of 75 km/hour.
	
	    (i) How far will it travel in 20 minutes?
	    (ii) Find the time required to cover a distance of 250 km.
	
	         Or
	
	 Suppose 2 kg of sugar contains 9×10^6 crystals. How many sugar crystals are there in
	
	 (i) 5 kg of sugar?
	 (ii) 3 kg of sugar?

19	Rehman is making a wheel using spokes. He wants to fix equal spokes in such a way that the angles between any pair of consecutive spokes are equal. Help him by completing the following table.

Number of spokes	4	6	8	10	12
Angle between a pair of consecutive spokes	90°	60°	...	...	...

>   (i)   Are the number of spokes and the angles formed between the pairs of consecutive spokes in inverse proportion?

	(ii) Calculate the angle between a pair of consecutive spokes on a wheel with 12 spokes.
	(iii) How many spokes would be needed, if the angle between a pair of consecutive spokes is 20°?