REVISION SHEET

SUBJECT: MATHEMATICS　　　　　　**CLASS-VI**　　　　　　　　**TERM II**

PRIME TIME

Q1. Find the common factors of 56 and 120.

Q2. Find the product of the common prime factors of 180, 144 and 108.

Q3. Find the least number that is divisible by all the numbers from 3 to 10.

Q4. Goofy and Mickey are playing the treasure hunting game. Mickey has kept treasures on numbers 32 and 80 on a line. What sizes of jumps will Goofy take to land on both numbers?

Q5. The first number has prime factorisation $2 \times 3 \times 7$ and the second number has prime factorisation $3 \times 7 \times 11$. Are they co-prime? Does one of them divide the other?

Q6. Find the smallest 4 -digit palindrome divisible by 4?

Q7. Write two numbers whose product is 10000. The two numbers should not have 0 as the units digit.

PERIMETER AND AREA

Q1. A flexible wire is bent to form the shape of a square whose perimeter is 40 cm. If the same wire is bent again in the form of a regular pentagon, find the side of the pentagon.

Q2. The perimeter of a swimming pool is 240 m. If the length is twice the width, then

　　a. what is the length of this pool?

　　b. what is the width of this pool?

Q3. A family decided to stick wall paper on a wall of their house. The wall is 12 m long and 9 m wide. The wall paper costs ₹ 22 per square metre. Find the cost of the wall paper required to cover the wall.

Q4. Vansh wants to cover his room which is 4 m wide and 5 m long by square tiles. If each square tile is of side 0.5 m, then find the number of tiles required to cover the floor of his room.

Q5. Five square flower beds, each of side 1 m, are dug on a piece of land 5 m long and 4 m wide. What is the area of the remaining part of the land?

Q6. A windsurfer has a triangular sail with base 1.5 m and area 1.95 m². Find the height of the sail.

Q7. Find the area of the shaded region.
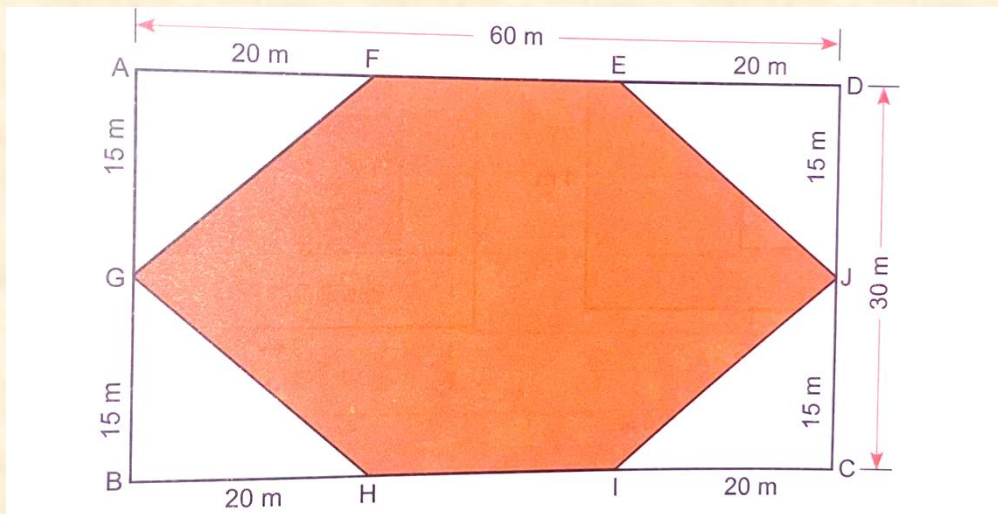
FRACTIONS

Q1. How many whole units are there in $\dfrac{4}{3}$ and in $\dfrac{7}{3}$?

Q2. Write the following mixed numbers as fractions:

a) $4\dfrac{3}{5}$ b) $7\dfrac{3}{4}$

Q3. Anil was in a group where 2 cakes were divided equally among 5 children. How much cake would Anil get?

Q4. Subtract the fraction using Brahmagupta's method:

a) $\dfrac{1}{8} - \dfrac{1}{9}$

Q5. Geeta bought $\frac{2}{5}$ metre of lace and Shamim bought $\frac{3}{4}$ metre of the same lace to put a complete border on a table cloth whose perimeter is 1 metre long. Find the total length of the lace they both bought. Will the lace be sufficient to cover the whole border?

PLAYING WITH CONSTRUCTIONS

Q1. Draw a square of side 5 cm. After drawing, check if it satisfies both the square properties.

Q2. Construct a rectangle one of whose sides is 6 cm and the length of a diagonal is 9 cm.

Q3. Construct a rectangle that can be divided into 3 – identical squares.

Q4. Construct a bigger house in which all the sides are of length 7 cm.

SYMMETRY

Q1. Draw the following. In each case, the figure should contain at least one curved boundary.

   a. A figure with exactly one line of symmetry

   b. A figure with exactly two lines of symmetry

   c. A figure with exactly four lines of symmetry

Q2. Sketch the following:

   (i) A triangle with a horizontal line of symmetry but no vertical line of symmetry.

   (ii) A quadrilateral with both horizontal and vertical lines of symmetry.

   (iii) A quadrilateral with a horizontal line of symmetry but no vertical line of symmetry.

Q3. Give the order of rotational symmetry for each figure:
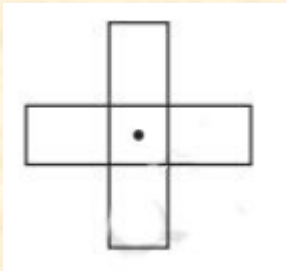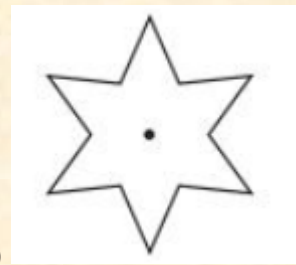
a)   b)

THE OTHER SIDE OF ZERO

Q1. Amit starts on stairs from step +3 and goes 3 steps down. Where will he reach? Write an expression for this movement.

Q2. If you start on stairs from the ground level and go 10 steps down, where will you reach? Write an expression for this movement.

Q3. If the Target step is -114 and Starting step is +131, find the movement needed.

Q4. Is 5 > – 6? Why? Is –5 < 6? Why?

Q5. Complete the addition using tokens.

   $(-5) + (+10)$

Q6. Scientists were doing research on optimum temperature for the survival of different strains of bacteria. Studies showed that bacteria X need optimum temperature of -29°C while bacteria Y need optimum temperature of -46°C. What is the temperature difference?

ASSERTION AND REASONING BASED QUESTIONS

DIRECTION : In the following questions a statement of **Assertion (A)** is followed by a statement of **Reason (R)** . Choose the correct option.

a) Both Assertion and Reason are true and Reason is a correct explanation of Assertion.
b) Both Assertion and Reason are true and Reason is not a correct explanation of Assertion.
c) Assertion is true but Reason is false.
d) Assertion is false but Reason is true.

Q1. **Assertion (A):** Alphabet 'C' has horizontal line of symmetry.

   Reason(R) : The symmetry of an object is defined as one half of the object is a mirror image of the other half.

Q2. **Assertion (A):** -18 is greater than - 12.

   Reason(R) : The integers placed on the right side of any integer on the number line are in ascending order.

Q3. **Assertion (A):** $\frac{1}{9}$ is greater than $\frac{1}{5}$

Reason(R) : Denominator 9 is bigger than the Denominator 5.

Q4. **Assertion (A):** The perimeter of square whose area is 64 cm^2 is 32 cm.

Reason(R) : Area of the square = (side)^2; Perimeter of square = 4 × side

Q5. **Assertion (A):** 17 and 19 are twin primes.

Reason(R) : These two primes are close to each other with a gap of only one number.

CASE-STUDY BASED QUESTIONS

Q1. The Sun is full of energy and solar energy comes from the sunlight that reaches the Earth. Solar energy can be converted into electrical energy by using solar cells. Solar cells are put together to make solar panels. These solar panels are put on rooftops of houses and offices to collect sunlight and turn into electricity.

Solar energy is good for our environment as it does not cause pollution like coal and oil do. Residential systems usually employ slightly smaller panels as compared to commercial systems. Usually, smaller panels are 164 cm long and 99 cm wide. Larger panels may be 196 cm long and 99 cm wide.
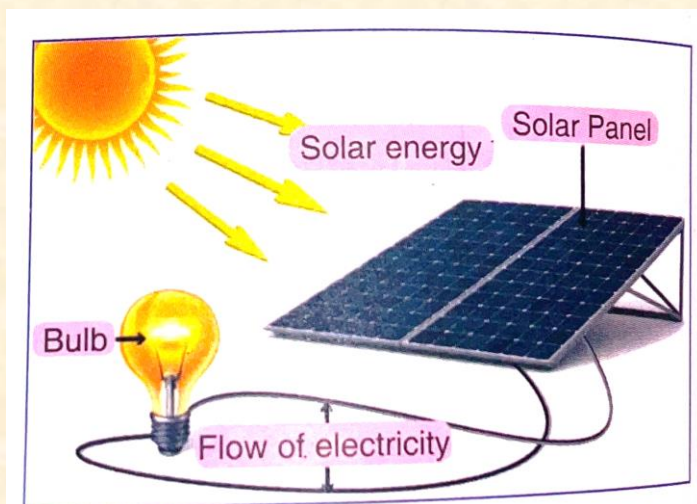
On the basis of given information answer the following questions:

a. What will be the perimeter of larger solar panel?
b. What will be the difference between the perimeter of the larger and the smaller solar panel.

c. Find the area of larger solar panel.

Q2. Rohan and Karan are friends. Both study in class 6. Total number of students in Rohan's school is 2004 and in Karan's school is 3008. The number which comes immediately after 2004 is 2005 which is obtained by adding 1 to 2004. This number is called successor of the number 2004. So, successor of an integer is obtained by adding 1 to the given integer. Similarly, predecessor of an integer is obtained by subtracting 1 from the given integer.

On the basis of given information answer the following questions:

a. Write the predecessor of the integer 2004.
b. Write the successor of the sum of the integers 2004 and 3008.
c. Evaluate: 1245 + 2345 - 1000. Also write the successor of the integer so obtained.