

## BASIC WORKSHEET- 1

Grade- VIII

Name of the Student: \_\_\_\_\_ Grade/Sec: \_\_\_\_\_ Branch \_\_\_\_\_

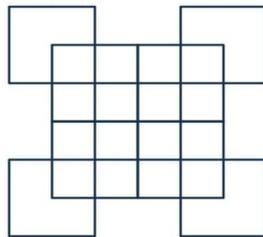
### MATHS

#### A. Improve your thinking skills

1. A few soldiers and some old civilians need to cross a rope bridge across a deep chasm at night. They have to go across in pairs with a torch, and there are enough torches for one torch per pair. The engineer has stated that no more than two can be on the bridge at any time. The crossing time for individuals on their own are predicted to be: 1,2,3,4,4,5,5 and 8 minutes. What is the minimum time required for the group to cross the bridge? L

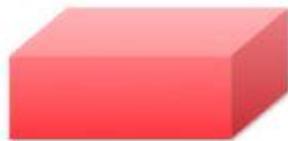


2. How many squares are there in the picture?



3. What number is the one half of one tenth of one fifth of one thousand?

4. A brick weighs 4kg plus half a brick. How heavy is the brick?



5. Find the digits that replace the symbols X and Y.

$$XX^Y = XYYX$$

6. A box with 80 matches weighs 60grams. The same box with 40 matches weighs 40grams. Find the weight of the box.



## B. Check your ability of recapitulation

1. Non decimal rational numbers are \_\_\_\_\_.
2. \_\_\_\_\_ is a statement of equality involving one or more variables.
3. Compound ratio of a: b and c: d is \_\_\_\_\_.
4. Altitude and Median coincide each other in \_\_\_\_\_ triangle.
5. We know  $a^0=1$  but 'a' not equal to \_\_\_\_\_.
6. A rational number except \_\_\_\_\_ have reciprocal.
7. The bisector of the \_\_\_\_\_ angle of an isosceles triangle bisects the base at \_\_\_\_\_ angles.
8. A term of expression having no literal factor is called a \_\_\_\_\_ term.
9.  $\pi$  is the ratio of \_\_\_\_\_ and \_\_\_\_\_ of the circle.
10. Number of line symmetries of  \_\_\_\_\_.

## C. Test your intelligence

1. Simplify  $\frac{3^n + 3^{n+1}}{3^{n+1} - 3^n}$ , where n is a natural number.
2. Two boys have 480 marbles between them. One arranges them in heaps of 6 marbles and the others in heaps of 9 each. If the total number of heaps is 72, how many marbles does each have?
3. A square lawn is surrounded by a path 2.5m wide. If the area of the path is 155sqm, find the area of the lawn.
4. Akshiti has to travel a long way to go to work everyday. Akshiti first takes her cycle to travel  $\frac{11}{80}$  of the total distance to the bus-stop. The bus takes her another  $\frac{9}{40}$  of the remaining distance. Akshiti then takes a train to travel a distance of 56.381 km. What is the total distance (in kilometers) from her house to the office?
5. A grocer buys eggs at 10 for Rs 8 and sells at Rs 10. Find his gain or loss percent.