Teachers' Handbook of Learning Outcomes

CLASS-IV

MATHEMATICS

FORWARD

Samagra Shiksha, Education Department, UT Chandigarh has prepared Teachers' handbook based on leaning Outcomes at Elementary level in Hindi, English, Mathematics, EVS, Science & Social Science.

This Handbook will enable the teachers to ascertain learning skills more accurately in these subjects. While making the document it has been ensured that the learning need of the children with different learning level-pre Basic, Basic, Proficient & Advanced, are being catered & the academic progress of the students can be monitored by Faculty Incharges, Cluster Resource Coordinators & further by Head of the school.

The material in the document can be used as an assessment tool for Elementary classes & to keep a track of achievement of the learning level.

Teachers' handbook will not only help teachers to focus on teaching learning process but also facilitate State functionaries in their role towards ensuring quality education in schools

To make it user-friendly, simple language has been used as far as possible across the document. To help the teacher understand and achieve the learning outcomes as per the curricular expectations.

This document includes list of learning outcomes (with labeling) and progress sheet for monitoring/ tracking of the progress of the students.

Question prepared in this document are only suggestive for teachers. The teacher can modify these tools as per the need.

ABOUT THE DOCUMENT

This question bank might prove an effective tool in the hands of the educators & evaluators. It aims at assisting teachers to assess and improve the performance of the learners.

Some features of the documents are as follows:

* Proper care has been taken to cover all the learning outcomes.

* The questions have been framed focusing upon the learner's mathematical thinking, reasoning and hence ability to solve daily life problems.

* The teacher can make relevant changes in question bank according to the needs of different levels of learners.

* It provides enrichment material & remedial material for different level of learners.

RESOURCE GROUP

1. Mr. Rakesh Sood   (Principal)   GMSSS Sector 28 D, Chandigarh

2. Ms. Gurpreet Kaur   (TGT Maths)   GMSSS Sector 23, Chandigarh

3. Ms. Abha Kumar   (TGT Maths)   GMSSS Sector 19, Chandigarh

4. Ms. Hemlata   (TGT Maths)   GMSSS Sector 21, Chandigarh

5. Ms. Jyoti Sharma   (TGT Maths)   GMSSS Sector 15, Chandigarh

6. Mr. Kapil Mohan Sood   (TGT Maths)   GHS Sector 53, Chandigarh

7. Ms Navneet   (JBT)   GMSSS, MHC, Manimajra, Chandigarh

8. Mr. Gulshan Kumar   (JBT)   GPS Mauli Complex, Chandigarh

9. Mr. Harish Kumar   (JBT)   GMSSS Sector 28 D, Chandigarh

10. Ms. Neelam Sharma   (CRC)

11. Mr. Vikram   (CRC)

12. Ms. Neena Rana   (CRC)

13. Ms. Renu Singla   (CRC)

Code	Learning Outcomes
5.1	• reads and writes numbers bigger than 1000 being used in her/his surroundings (up to 100000)
5.2	• comparison upto 99999
5.3	• complex +
5.4	• complex -
5.5	• tables upto 20
5.6	• applies operations of numbers in daily life multiplies 2 and 3 digit numbers
5.7	• divides a number by another number using standard algorithm
5.8	• estimates sum, difference, product and quotient of numbers and verifies the same using different strategies like using standard algorithms or breaking a number and then using operation. For example, to divide 9450 by 25, divide 9000 by 25, 400 by 25, and finally 50 by 25 and gets the answer by adding all these quotients.
5.9	• performs four basic arithmetic operations on numbers beyond 1000 by understanding of place value of numbers • applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals
5.10	• acquires understanding about fractions • finds the number corresponding to part of a collection • identifies and forms equivalent fractions of a given fraction • expresses a given fraction 1/2 , 1/4, 1/5 in decimal notation and vice-versa. For example, in using units of length and money half of Rs. 10 is Rs.5 • converts fractions into decimals and vice versa
5.11	• classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing
5.12	• makes cube, cylinder and cone using nets designed for this purpose
5.13	• relates different commonly used larger and smaller units of length, weight and volume and converts larger units to smaller units and vice versa
5.14	• estimates the volume of a solid body in known units like volume of a bucket is about 20 times that of a mug
5.15	• identifies 2D shapes from the immediate environment that have rotation and reflection symmetry like alphabet and shapes
5.16	• identifies the pattern in triangular number and square number
5.17	• collects data related to various daily life situations, represents it in tabular form and as bar graphs and interprets it.

MATHS LEARNING OUTCOMES ACHIEVEMENT SHEET (CLASS 5)

School:-
Class:-
Class Teacher:-

Maths Learning Outcomes		Basic Numeracy									Experimental Activities							
		5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.10	5.11	5.12	5.13	5.14	5.15	5.16	5.17
S. N.	Students' Name	Counting upto 99999	Comparison upto 99999	Complex +	Complex -	Tables upto 20	Complex x	Complex ÷	Basic Operation Properties	Word Problems	Fraction	Angles (Kinds & construction.)	Cube/Cuboid/ Cone/Cylinder Drawing	Conversion of units	Volume	Symmetry	Patterns	Data interpretation

QUESTION BANK BASED ON LEARNING OUTCOMES
MATHEMATICS
CLASS 5

LEARNING OUTCOME 5.1
- **The learner reads and writes numbers bigger than 1000 being used in her/his surroundings (upto 1,00,000)**

1. **Read the advertisement carefully and answer the followings:**

DISCOUNT VOUCHERS

Worth Rs. 1500

on every purchase of

Rs. 2000 or more.

NAVNEET GARMENTS

a) **If you shop for Rs.1500, will you win the gift voucher?**

   ………………………………

b) **How many vouchers did Karan get when he bought clothes for Rs.2800?**

   ……………………………..

c) **If Steffi and Peffi purchased articles worth Rs. 2100 and Rs. 4600. Calculate the total amount spent and vouchers won by them together?**
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………

2. **Study the following report and answer the related questions.**

NAVNEET LABORATORIES

BLOOD TEST REPORT

Patient Details:

Name	:	*Mr.Vivek Subramanium*
S/O	:	*Mr. Arvind Subramanium*
Age	:	*28 years*
Address	:	*House NO. 7896, Sector 28-B Chandigarh.*
Doctor	:	*Dr.Aastha Sood*

Parameter	Normal Range	Result
WBCs(White Blood Cells)	4,500-10,000 Cells/mcl	7,800 cells/mcl

(Note: A micro liter is a very tiny amount-one millionth of liter)

Lab Tech: _____

Navneet Kaur

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1. **Read and write Mr.Subramanium's residential address in the space given below.**
   ……………………………………………………………………………………………
   ……………………………………………………………………………...………….

2. **Read and write the normal range of WBCs.**
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………

3. **How many WBCs have been reported in Mr.Subramanium's blood test report?**
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………

4. **Is Mr. Subramanium at risk of WBCs inflammation?**
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………

3. **Meera needs your help in solving the following problems:**

a) **Find the Sum of the smallest 5 digit number and largest 5 digit number.**

b) **What numeral will you obtain after subtracting the smallest 6 digit number from the largest 6 digit number?**

c) **Add the largest 6 digit number in the smallest 4 digit number and write the answer so obtained.**

4. **Brijmohan has a Vegetable shop. The following price chart hangs on its walls. Observe and evaluate the expenditure of following restaurant owner:**

Vegetables	Rate in Rupees
Tomatoes	25/kg
Potatoes	20/kg
Brinjals	40/kg
Capsicum	42/kg
Onions	20/kg
Bitter Gourd	15/kg

a) Navneet buys 100 kg onions for Rs. _____.

b) Meera buys 150 kg tomatoes for Rs. _____.

c) Sumitra buys 50 kg brinjals, 200 kg onions and 70 kg bitter gourd for a total of Rs.

_____.

d) Rohan buys 150 kg of Capsicum for Rs. _____.

5. **Write the place value of the following digits in the following numbers. Also read and write the number names.**

Sr. No.	Digit	Numeral	Place Value	Number Names
1	5	683590	....	....
2	7	123987	....	....
3	1	943216	....	....
4	4	164830	....	....
5	6	600742	....	....
6	2	024000	....	....

LEARNING OUTCOME 5.2

- ## Comparison up to 99999

1. **Compare the following numerals and state which is bigger than the other with help of symbols ('>', '='or '<'):-**

54321		9815
26341		26329
09480		13469
71212		72777
10000		9999

LEARNING OUTCOME 5.3

- **Complex +**

1. **Rahul buys 3500 Bananas for Rs.70/dozen and Shariq buys 3900 Bananas for Rs.65/dozen Bananas while returning home. How many total Bananas are bought together by the two brothers and what amount of money has been spent from home?**

LEARNING OUTCOME 5.4

- ## Complex -

1. **Out of a total Rs. 80,000, Ramkaran returned his dept a sum of Rs.5000 to Navneet, purchased grocery for Rs.2780 and invested Rs.65000 in a business project. How much money is he left with?**

LEARNING OUTCOME 5.5

- ## Tables up to 20

1. **Fill in the blanks. (Dogging tables)**
   a. 16x5=____
   b. 20x3=____
   c. 15x9= ____
   d. 13x8= ____
   e. 12x7= ____

   f. 6x9= ____
   g. 8x8= ____
   h. 7x9= ____
   i. 11x6=____
   j. 18x8=____

2. **Navneet saved Karan's life by donating him blood in emergency situation.**
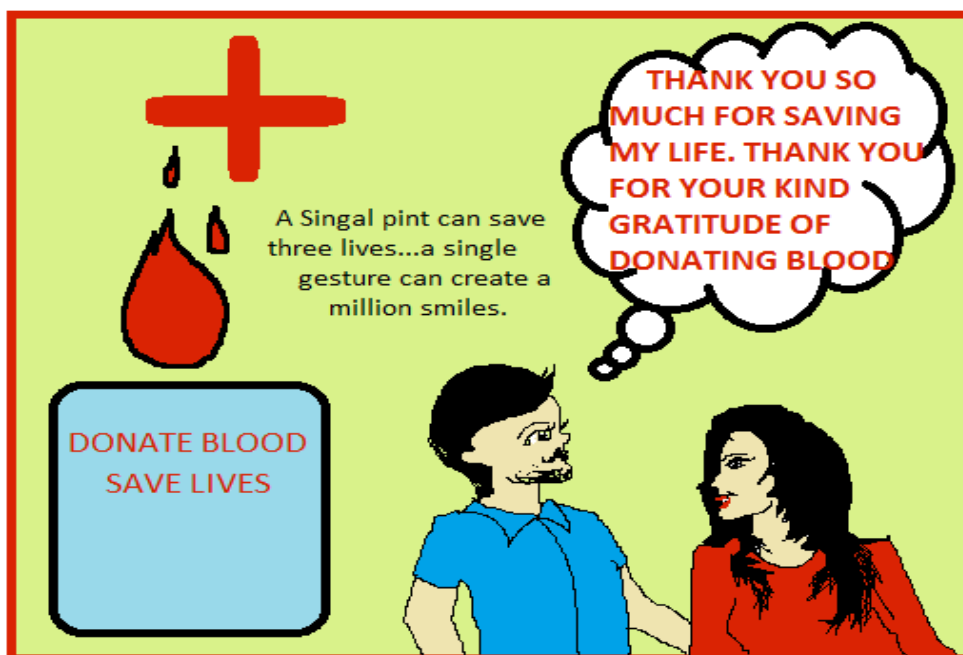
Both later decided to encourage others for the Nobel cause. Hence the campaign was initiated and posters were promoted. 17,890 people came forward and they brought 15 friends each along with them. How many people joined the campaign?

LEARNING OUTCOME 5.6

- ## Complex '×'

1. In an excursion of 1503 students, all were given a refreshment of cold drinks for Rs.25 and chips for Rs.15 each respectively. Calculate the amount spent for the refreshment of all the students.

LEARNING OUTCOME 5.7

- **Complex ÷**
- **The learner divides the given number by another number using Standard Algorithms.**

1. **Stephian has 150 stamps in her collection. So far she has had 6/9 of them laminated. How many stamps are laminated? (Tick the correct answer)**
   a) 100
   b) 50
   c) 5
   d) 10

LEARNING OUTCOME 5.8

- **The learner estimates sum, difference, product and quotient of numbers and verifies the same using different strategies like using Standard Algorithms or breaking a number and then using operation. For example, to divide 9450 by 25, divide 9000 by 25 also 400 by 25 and finally 50 by 25 and gets the answer by adding all these quotients.**

1. Study the following diagram which shows the sale percentage of various flavours of ice-cream by an ice-cream vendor out of his total 10,000 ice-creams.

a) Calculate the number of Butter Scotch, Chocolate, Strawberry and Vanilla flavoured Ice Creams sold.

Sales percentage according to flavours

■ Butter Scotch   ■ Chocolate   ■ Vanila   ■ Strawberry

33%
27%
25%
15%
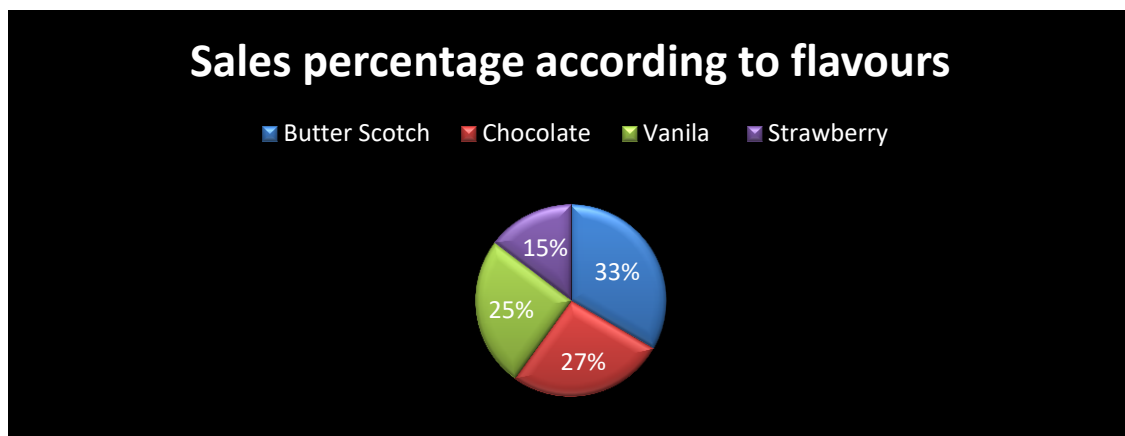
b) Add the number of Butter Scotch and Strawberry flavoured ice creams sold.

2. **Divide 512 Biscuits, 384 snack's packets, 645 chocolates as refreshment amongst a Dance Class of 128 students in such a way that the students receive equal shares. Also mention how much and which of the eatable will be left with the distributor if any.**

3. **Divide 6080 books being donated in an orphanage among 600 students in equal share. Also divide 10500 blankets to these students and mention the remaining if any. Can you estimate the remaining articles in total left with the distributor?**

4. **Divide the followings and write answers in the blanks and add all the answers obtained together.**

    A. $625 \div 25 =$ …………..
    B. $1000 \div 10 =$ …………..
    C. $11,111 \div 11 =$ …………..
    D. $4388 \div 20 =$ …………..
    E. $10,900 \div 15 =$ …………..

    » $A + B + C + D + E =$ …………..

5. **Convert the fractions into numerals then add the answers so obtained together.**

    a. $2000/10 =$ [ ]

    b. $1020/20 =$ [ ]

    c. $5000/50 =$ [ ]

    d. $1111/11 =$ [ ]

    e. $3006/3 =$ [ ]

    $a + b + c + d + e =$ [ ]

6. Dolma took a loan from a friend to buy a moped for Rs. 9588. She has to pay it back in equal amounts every month for duration of six months. How much will she have to pay every month?

7. 976 children are going for a picnic at Pinjore Garden. How many mini buses will be required to take them to the picnic spot if 25 children fit in one bus?

8. Meera has only Rs.2000 in her wallet. She wants to fill diesel in her car. If diesel costs Rs.74/liter, estimate the maximum liters of diesel her vehicle will be filled with.

9. Navneet, Sonia, Chanchal, Harleen and Neelam started donating 20% of their salaries in an old age home. If they all earned Rs.60,000/month estimate total donation during the year.

10. There are 560 students and 4 sections of a dance class. Can you calculate the number of students in each class? If music class with 444 students is to be merged with the dance class how more many students be seated in each class? How many total students will now be there in each class?

11. On the auspicious occasion of Durga Pooja, Navneet and her friend Happy want to distribute 240 dozens of Bananas to the poor girls in 6 villages nearby. How many Bananas will each village receive?

LEARNING OUTCOME 5.9

- **The learner performs four basic Arithmetic operations on numbers beyond 1000 by understanding of place value of numbers.**

1. Add the followings and fill in the answers in the respective space provided:

a)   9999   +   1000   -   924   =   ⬡

b)   480   x   50   =   ⬡

c)   346   +   484   +   4084   =   ⬡

d)   701   ÷   10   +   2468   =   ⬡

e)   1260   x   0   +   84089   -   1024   =   ⬡

f)   1340   +   340   +   13489   +   1334   =   ⬡

g)   786   x   786   +   1   =   ⬡

h)   11006   +   360   -   1178   =   ⬡

i)   70130   -   21046   +   1032   =   ⬡

j)   946   +   1023   ÷   20   =   ⬡

LEARNING OUTCOME 5.9

- **The learner applies four basic fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals.**

1. James worked to earn Rs.12000.The wages are as Rs.2000/hr. Calculate how long did he work? Also tell how much he might have earned if he worked for 6 more hrs.

2. Mrs. Paul starts a business with Rs. 24000 in hand and invests Rs.12000 over the purchase of Raw Material for production of garments, how much is left with for rest of the investments?

3. Shelly purchased 400m long rope and Jenny purchased 160m long rope. Estimate the total length of the rope when joined together.

4. Maya used 1m 50 cm of red ribbon and 4m 28cm of blue ribbon to make a flower. How much ribbon did she use in all?

5. Alex purchased 4kg 350g of rice. David purchased 3kg 209 g more rice than Alex. Find the quantity of rice purchased by David.

6. **Navneet purchased 7kg 350g of potatoes. Mike bought 2kg 562g less potato than Navneet. Find quantity of potatoes purchased by Mike.**

7. **A milkman sold 46 *l* 200 *ml* of milk on 3 days of a week and 53 *l* 195 *ml* of milk in next 2 days. Calculate the total quantity of milk sold in 5 days.**

8. **An oil tanker can hold 5 *l* of oil. How much oil is left in the can if 2 *l* 750 *ml* of oil is used?**

9. **Savita's flight took off from New Delhi at 11:15 in the morning. When it arrived in Mumbai her watch reads 1:32 in the afternoon. How long did the flight last?**

10. **Mamta and Pooja the two sisters play badminton every evening. Yesterday their game started at 4:15 p.m and finished at 6:45 p.m. How long did the game last?**

LEARNING OUTCOME 5.10

- **The learner acquires understanding about fractions.**
- **The learner finds number corresponding to part of a collection.**

1. **Navneet has to cut her pizza into 4 quarters so that they are easier to be distributed among her 3 guests and she kept equal share for herself.**

■ 1st Qtr ■ 2nd Qtr ■ 3rd Qtr ■ 4th Qtr
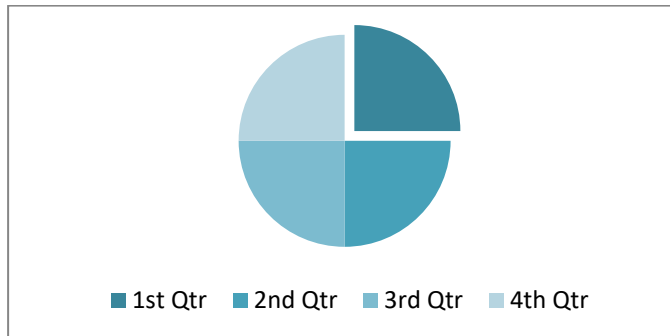
   a) **What fraction has been cut aside from the pizza for Navneet herself?**
   …………………
   b) **What fraction of the pizza is left for her friends?**
   …………………

2. **Milanpreet has decorated her favourite shape-stickers in her toy stand like this. Observe and answer the questions given below:**
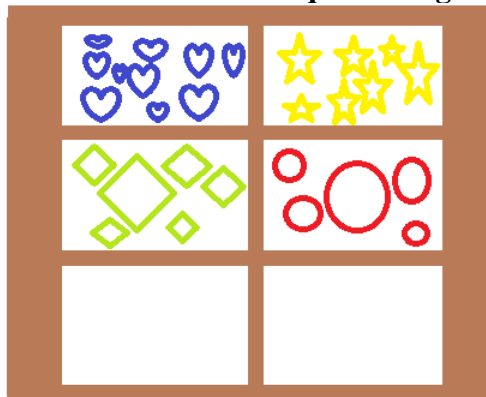
a) **What fraction has the stars?**
………………
b) **What fraction has no stickers?**
………………
c) **What is the total fraction covered with stickers?**
....

LEARNING OUTCOME-5.10

- **The learner identifies and forms equivalent fractions of a given fraction.**

1. **Colour the parts of shapes that represents each fraction:**

1. 1/2   b) 2/4   c) 1/3   d) 4/6

e) 6/7
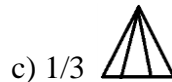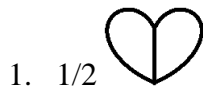
2. **Fill in the missing fractions equivalent to each other.**

a) 3/4   =   __ /8

b) __/3   =   2/6

c) 1/2   =   3/__
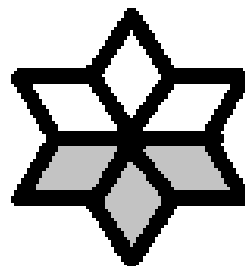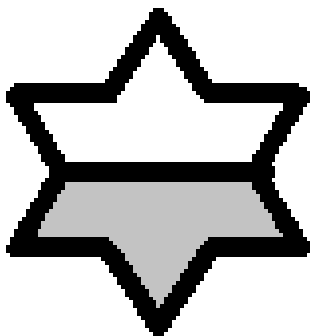
3. Fill in the blanks in order to make the fractions equivalent to other;

a) 4/12 =   ---/6

b) 1/8   =   ---/16

c) 1/6   =   ---/12

d) 5/10 =   ---/6

e) 2/3   =   ---/9

f) 2/3   =   8/---

g) 1/4   =   8/---

h) 6/9   =   ---/18

i) 2/5   =   4/---

4. Navneet lost 1/6th of her 600 rupees in her street food business. How much money is she now left with:-

a)100 rupees   b)500 rupees   c)350 rupees

5. Sudhir got 8 presents on his birthday and opened 1/2 of them immediately. How many presents have not been opened yet?

…………………………..

6. Meera saw 18 birds on a tree, half of which soon flew away. Can you tell what number of birds flew away and how many were still sitting over the tree?

7. As soon as the volcanic eruption was predicted by some Geologists, 1/4th out of 120 cities which could be devastated were immediately evacuated. How many cities are still in danger?

8. Ella had 99 picture books and 46 story books in her book shelves. She donated 1/3rd of them in an Orphanage. How many books were still left over the book shelves?

LEARNING OUTCOME-5.10

- ## The learner converts fractions into decimals

1. **Convert the followings into a maximum of two digits after decimals:-**

   a) 5/8 = _____   d) 28/8 = _____

   b) 13/3 = _____   e) 97/3 = _____

   c) 9/2 = _____   f) 670/12= _____

2. **Convert the decimals into fractions:-**

   a) 5.75 = _____   d) 9.27 = _____

   b) 3.8 = _____   e) 0.78 = _____

   c) 7.94 = _____   f) 0.75 = _____

LEARNING OUTCOME-5.11

- **The learner classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing.**

1. **Match the following angles with their types.**
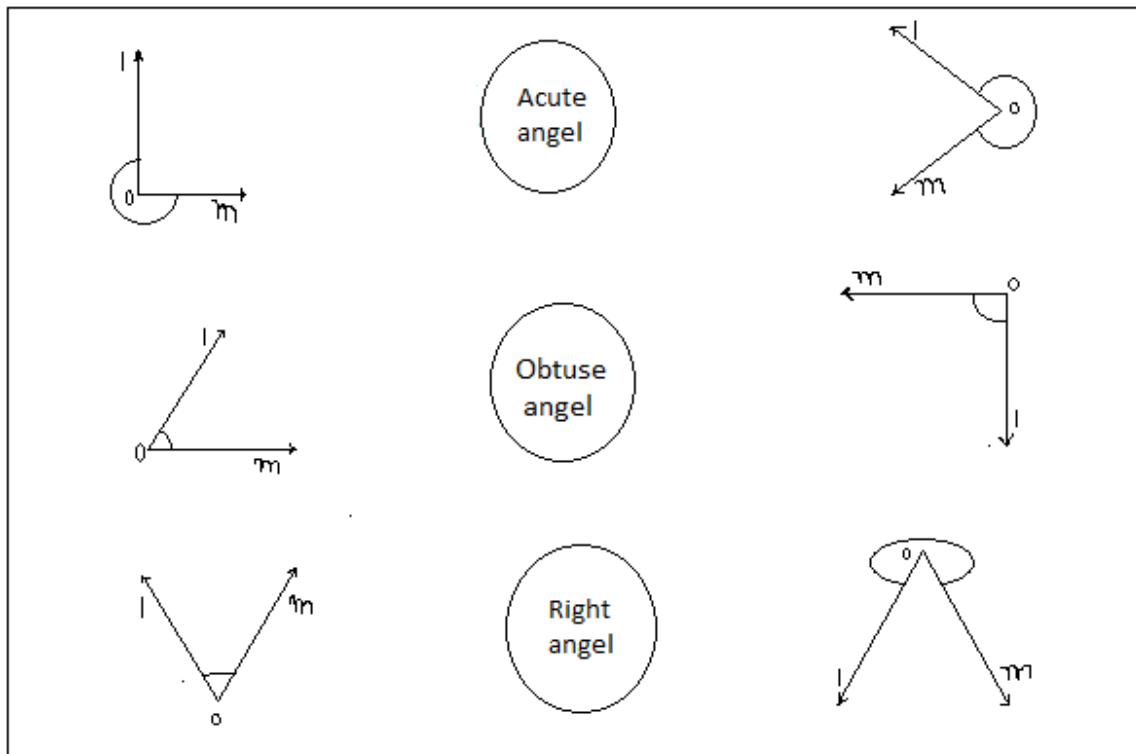
2. **Make angles of the following measurements, using a protactor.**
a) 60°   b) 80°   c) 140°

3. **Make the angles of the following mentioned degrees with the help of compass:-**
   a) 90°   b) 60°   c) 30°

4.
   a. **Activity Cut the square piece of bread in such a way that you obtain two equilateral triangles.**

   b. **Put the pieces obtained over butterpaper and trace using sauce on your fingertip.**

5. **Find and trace any tringular shaped object. Mark all the angles which are visible to you. Also measure the angles with the help of a protactor.**

LEARNING OUTCOME 5.12

- **The learner makes cube, cylinder and cone using nets designed for this purpose.**

1. **If you wish to make a cylindrical flower vase with waste material which of the following material will you choose:**

a) An empty shoe box   b) A bangle   c) A useless piece of pipe
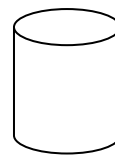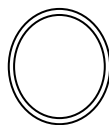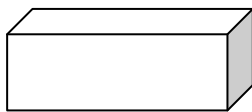
2. **Sheenu wishes to wishes to make a dice to play snakes and ladders game. Can you help her assemble the cardboard net to make the dice?**
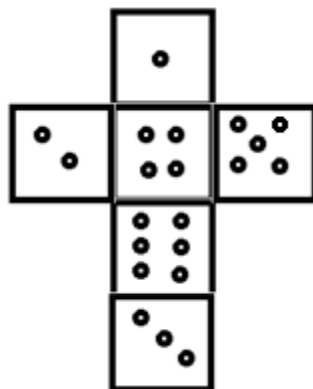
3. **For Milanpreet's birthday her brother Japmanvir wishes to make the birthady cap. Help him make it by choosing the best suitable net of hard paper to make the cap.**
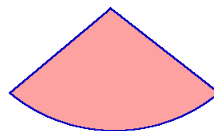
a.   b.   c.

LEARNING OUTCOME-5.13

- **The learner relates different commonly used larger and smaller units of length, weight and volume and converts larger units to smaller units and vice versa.**

1. **Answer the followings:**
a) **How many milliliters are there in a litre?**
   ……………….
b) **How many metres are there in a kilometre?**
   ……………….
c) **How many centimetres are there in a metre?**
   ……………….

2. **Convert the followings as asked:-**
a) 10 km   =   ____m
b) 10 m   =   ____cm
c) 1450 m   =   ____km____m
d) 5680 m   =   ____km____m
e) 650 cm   =   ____mm
f) 230 m   =   ____cm

3. **Match the followings units of measurement:-**

7 kg	1 kg
500 ml	9 m
500 m	7000 g
900 cm	1/2 l
1000 g	1/2 km

4. **Measure and write the length of the following line segments:**

a   b   …………….

a   b)   …………….

5. **Solve the following :**
a) 500 *ml* + 500 *ml*   =   1000 *ml*   =   1 l
b) 300 *ml* + 200 *ml* + 500 *ml*   =   ____ml   =   ___l
c) 500 m + 500 m   =   ____m   =   1 km
d) 300 m + 200 m + 500 m   =   ____m   =   ___ km
e) 500 g +500 g   =   ____ g   =   ___ kg
f) 1 kg   =   ____ g
g) 3 l =   ____ml

29

6. **Observe the following figures carefully and answer the realated questions:-**
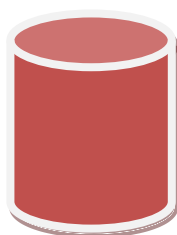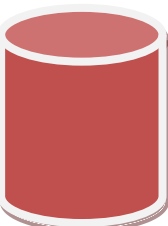
15 liters   2 liters   500 milliliters   200 milliliters
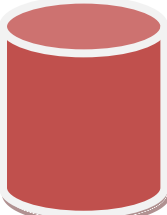
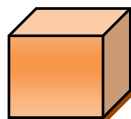a)   +   =   _____ ml

b)   +   =   _____ml

c)   +   =   _____ml

d)   + + +   =   _____ml

**7.** **If the volume of this box**   **is 5 cm^3, then what is the volume of 4 such dice?**

LEARNING OUTCOME 5.14

- **The learner estimates the volume of a solid body in known units like volume of a bucket is about 20 times that of a mug.**

1. **How many spherical balls of the following size and volume might be put in the given box in order to cover the maximum space of the box. Tick the correct answer:**

10 cm^3

65 cm^3
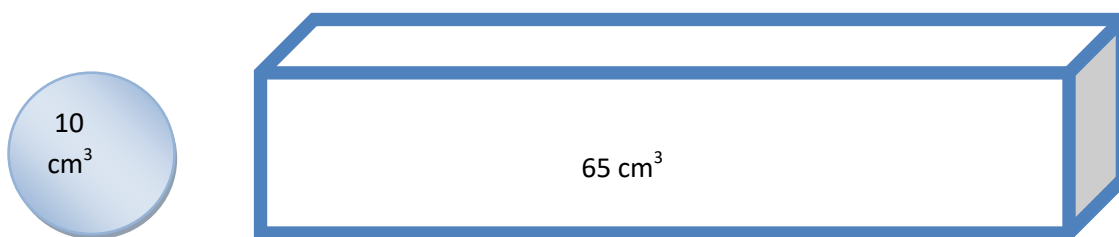
a) 6 balls   b) 16 balls   c) 8 balls   d) 18 balls

2. **How many glasses given below can be poured into the milk bowl given below?**

200 ml

1000 l

…………………………………
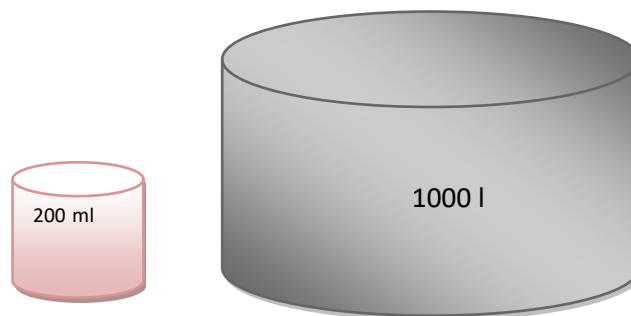
3. While making lemonade Ravneet pours 5 ml sugar syrup into the 500 ml of water in a jug. How much water will rise up?

…………………………………………..

4. How many liters of water can be poured in 3 buckets of volume 25 litres each?

…………………………………………
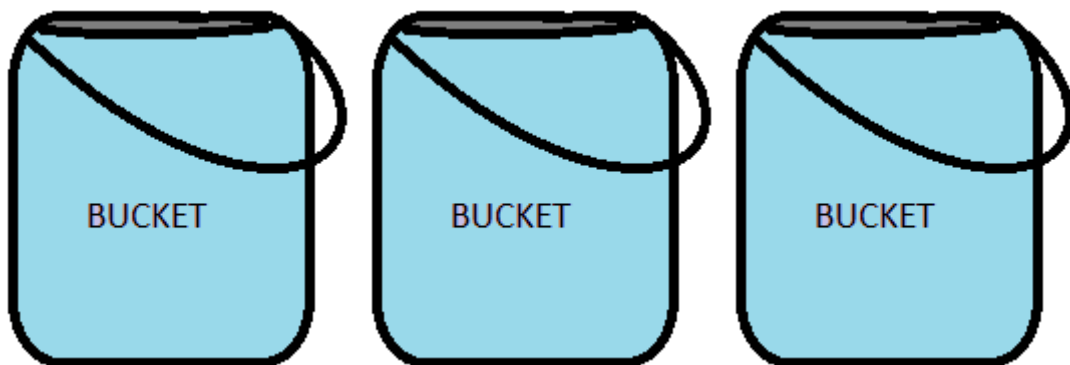
5. If 2 ice cubes of volume 15 cm³ each are gently dropped into a glass half filled with Chocolate Shake how much shake will rise?
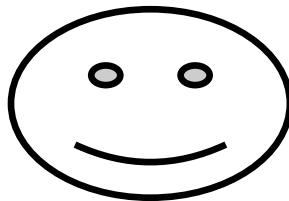

…………………………………….
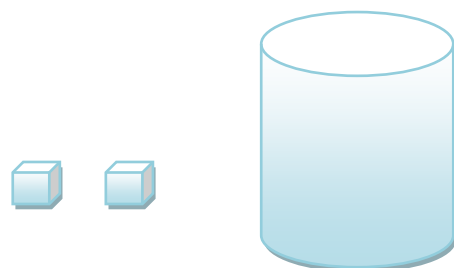
LEARNING OUTCOME 5.15

- **The learner identifies 2D shapes from the immediate environment that have rotation and reflection symmetry like alphabet and shapes.**

1. **Can you draw a line dividing the smiley in such a way that the other half face appears like a mirror reflection of the first?**


2. **Encircle 2D figures from the followings which are symmetrically alike from all sides:-**
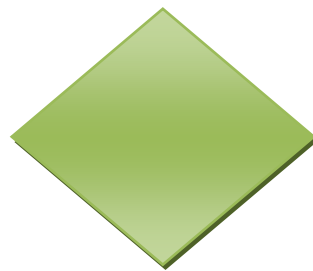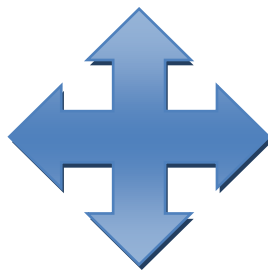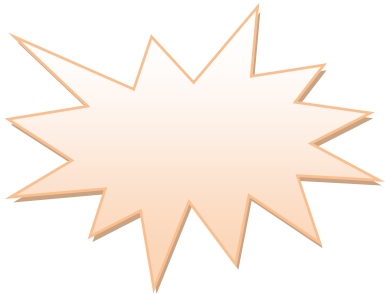
3. **Look at the star fish and think of marking such a line that demonstrates each side the exact reflection of the other:**

4. Search and fill colour only in completely identical (same shape and size) set of 2D shape and help Navneet in completing her modern Art piece of shapes painting.
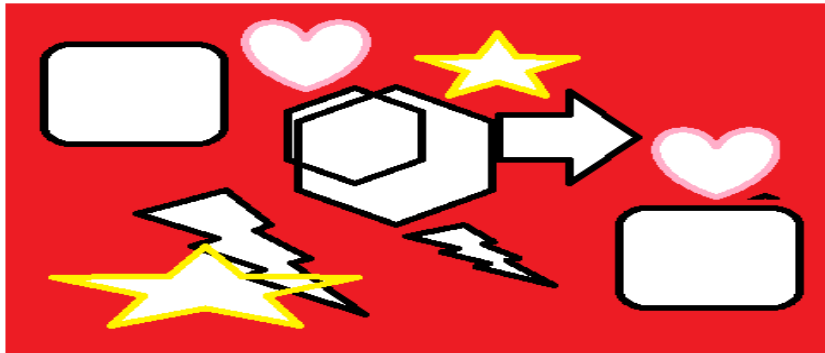
5. Jyoti has made the following creative drawing. Help her answer the questions being asked by people about the piece of art.
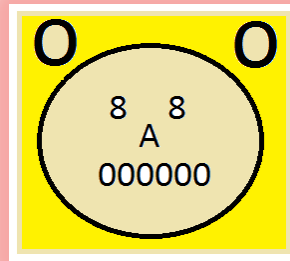
a) Which animal's face like appearance can you see?
   ………………………..

b) What makes the picture look different then routine drawings?
   ……………………….

c) How many alphabets or numbers and shapes have been used?
   ………………………...

d) Can you draw anything else with 2D shapes, alphabets and numbers?
   ………………………….

6. Which of the following English words read the same even after being flipped:-
   a) M O O N
   b) S I S
   c) S W I M S
   d) S O N S

7. Which of the numerals look the same after a flip:-
   a) 1 0 0 0 0 1
   b) 2 0 0 0 2
   c) 1 0 1 1
   d) 2 1 1 2
   e) 8 8
   f) 6 6 0 9 9
   g) 1 8 8 1
   h) 3 3 3 3

LEARNING OUTCOME 5.16:

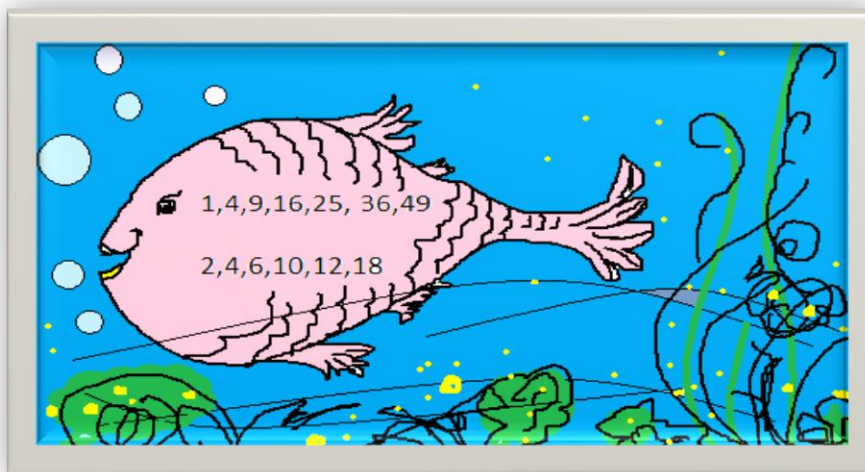- ## The learner identifies the pattern in triangular number and square number.

1. **Look at following patterns of numbers and extend it.**

1	x	1	=	1
11	x	11	=	121
111	x	111	=	12321
1111	x	1111	=	_____
11111	x	11111	=	_____
111111	x	111111	=	_____

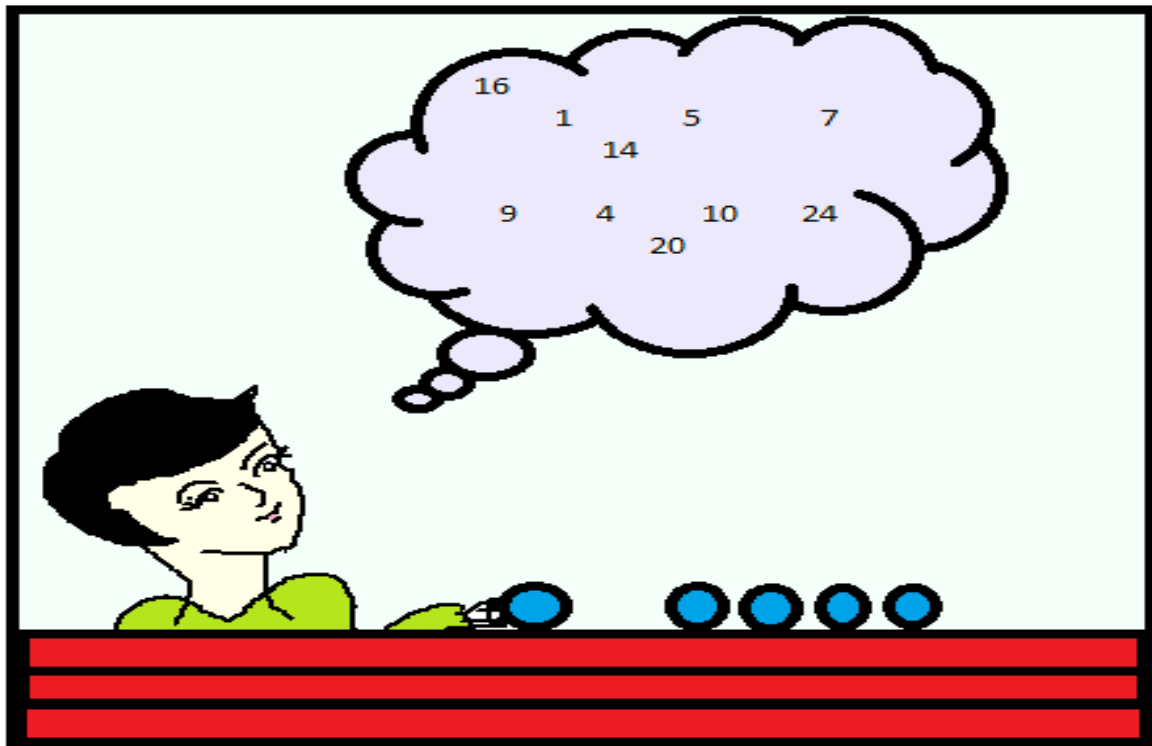2. **Fill the missing digits or numbers.**

○   1

○
○○   (1+2) =3

○
○○
○○○   (1+2+3) =6

○
○○
○○○
○○○○   (1+2+3+ _) = ____

○
○○
○○○
○○○○
○○○○○   (_+_+ 3 + _ + _) = ____

3. **Circle the correct square number patterns engraved over the fish's body:-**

1,4,9,16,25, 36,49

2,4,6,10,12,18

4. **Help Jatin select square numbers by putting a circle so that he can arrange his balls accordingly.**

5. **The gift paper over the box has various numbers randomly written over it. Given below are two ring tangs. Read the tag and put correct numbers in the rings.**

51   8   4   10   9   13   67   20
23   32   21   15   25   16   90

TRIANGULAR NUMBERS

SQUARE NUMBERS
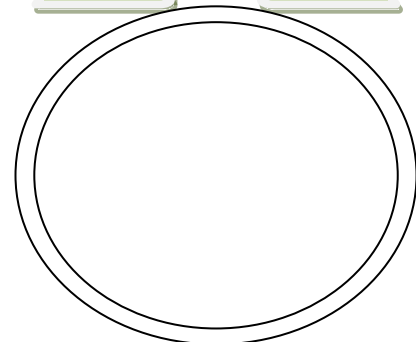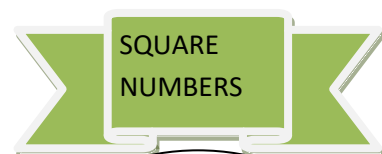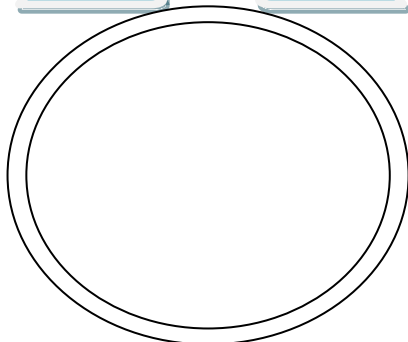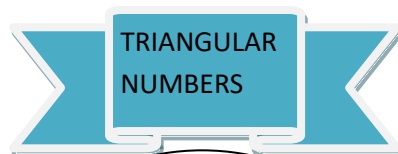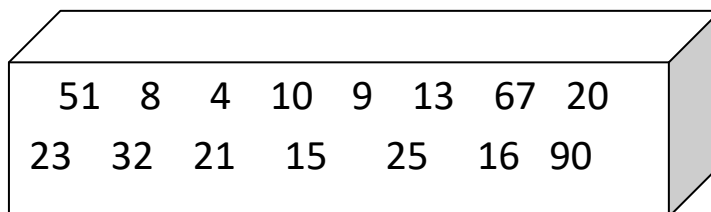
LEARNING OUTCOME 5.17

- **The learner collects data related to daily life situations, represents it in tabular form and as bar graphs and interprets it.**

1. **Mrs. Navneet has very tight schedule so help her compile the following raw data of students and their grades by filling up the missing cells.**

Dishant   A
Sariq Anwar   B
Vikas   A
Ayush Singh   C
Farhan   A
Shubh Goyal   A
Tanishq   B
Piyush   B
Sneha   A
Prachi   B
Sakshi   A
Samreen   C

Roll No.	NAMES	GRADE - A	GRADE - B	GRADE - C	GRADE - D
1	Dishant	✓			-
2	Sariq Anwar		✓		-
3	Vikas				-
4	Ayush Singh				
5	Farhan				
6	Shubh Goyal				
7	Tanishq				
8	Piyush				
9	Sneha				
10	Prachi				
11	Sakshi				
12	Samreen				
Total	12				0

2. A tree farm has the following types and number of trees:-

20	• MANGO TREES
45	• PAPAYA TREES
77	• APPLE TREES

The farmer now is planning to plant 50 guava, 30 coconut and 50 banana trees as well in the empty space of the farm. Represent the new project the same way the previous has been done for you.
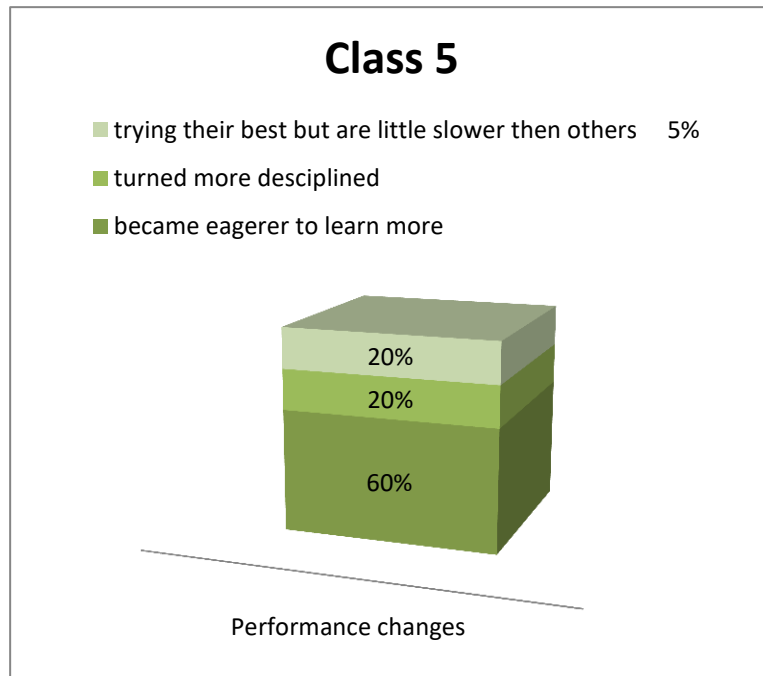
3. There are 16 Angel fishes, 22 Calico Gold fishes, 31 Neontetra fishes and 15 Small Red Gold fishes in a big Aquarium. Represent this data in the following table:-

Sr. No.	FISH SPECIES	TALLY MARKS	NO. OF FISHES
1			
2			
3			
4			
Total			

4. **Ripudaman has been working in East Miles office since 4 years. His salary was just Rs. 14,000 then. In 2016, it increased to Rs. 16,000. It increased to Rs. 20,000 in 2017 and finally this year he is getting Rs. 38000. Can you tell if he's in gain or loss in all these years? Let's complete this bargraph to check his growth or downfall.**
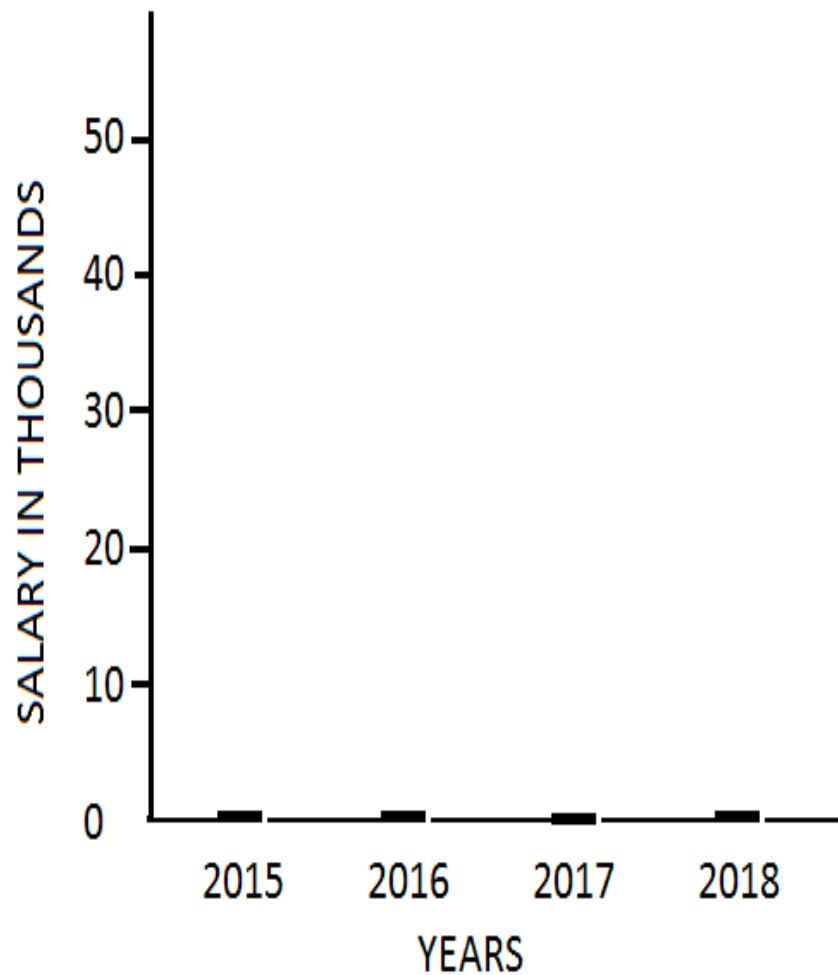
5. **Mrs. Navneet, Class Teacher of Class 5 recorded the following activities of her Class of 50 students after changing her teaching techniques for improvement. She made a graph based on the results. Study the graph and answer the following questions:-**

Class 5

- trying their best but are little slower then others   5%
- turned more desciplined
- became eagerer to learn more

20%
20%
60%

Performance changes

a) **Which class has been under consideration?**

....

b) **What percentage of the class became more eager to learn?**

....

c) **How many students out of the class are slow but trying their best to cope with?**

....

d) **What percentage of students became more disciplined in the class?**

....