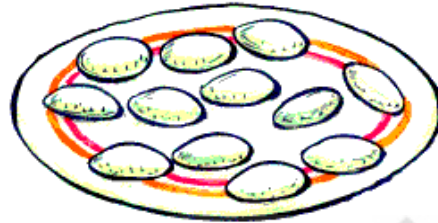


12

Dividing into equal parts

Mother has put 12 idlis on the plate.



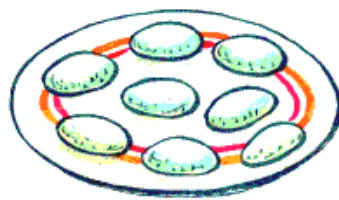
Mother : Sonu and Koushik divide these idlis equally between the both of you and finish your breakfast.

Sonu and Koushik divided them like this.

Have they divided the idlis equally?



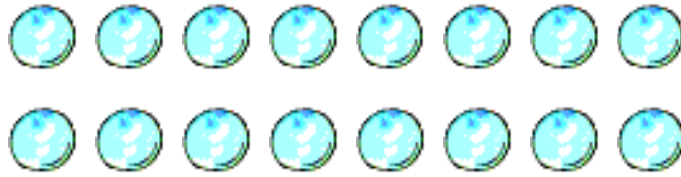
Now, can you divide these 8 idlis equally among 4 children?



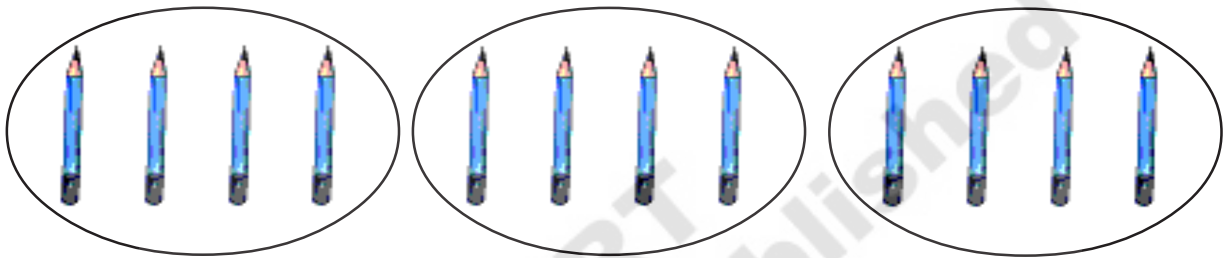
Also, divide these 9 pencils equally among 3 children?



What about, 16 marbles among 4 children?



Today the maths teacher is teaching division in class. She makes 12 pencils on the board and asks Sonu to divide 12 pencils among 3 people. Sonu divides by drawing circles.



Sonu says that when 12 pencils are divided equally among 3 people each person will get 4 pencils.

Sonu's classmate- You are correct. 12 divided by 3 is equal to 4. This is written as

$$12 \div 3 = 4 \text{ and also as } \frac{12}{3} = 4$$

Do This

- Write the following statements as Sonu's classmate has done above.
 - Latha makes 6 wadas and divides them equally among her 3 children.
 - The teacher divides 16 notebooks equally among 8 children.
 - Mother divides 10 rotis equally among 5 family members.
- Express the following in the form of statements.

(a) $\frac{4}{2}$

(b) $\frac{14}{2}$

(c) $\frac{15}{3}$

(d) $\frac{16}{2}$

(e) $\frac{18}{6}$

Divide roti's equally

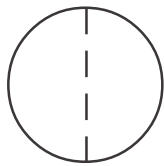


The teacher asked the children

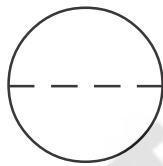
How will you divide 1 roti equally among 2 people?



Children drew pictures of roti's in their notebook and showed the teacher.



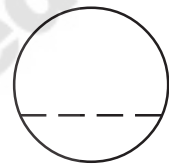
Kamala



Rama



Krishna



Suresh



You have to correctly divide the roti into two equal parts. Suresh are the two parts in your picture equal? Please correct it. Now all of you tell me, how much roti, will each person get?

Each person will get half of the roti.

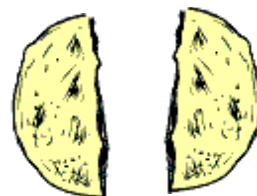


Kamala

Teacher : Yes, Half mean one part out of two equal parts. This is written as $\frac{1}{2}$.

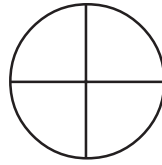
So,

$$1 \div 2 = \frac{1}{2}$$



Teacher : Now, divide one roti equally among 4 people.

Kamala drew this picture in her notebook.



She explained to her teacher : Each person will get one part out of four equal parts or one-fourth of the roti.

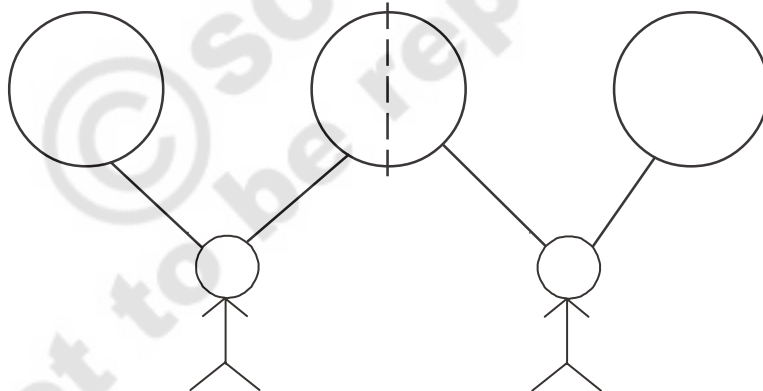
Teacher : Correct, we write this as $\frac{1}{4}$

So, $1 \div 4 = \frac{1}{4}$



Teacher : Now, can you divide 3 rotis among 2 people.

Kamala did it like this-

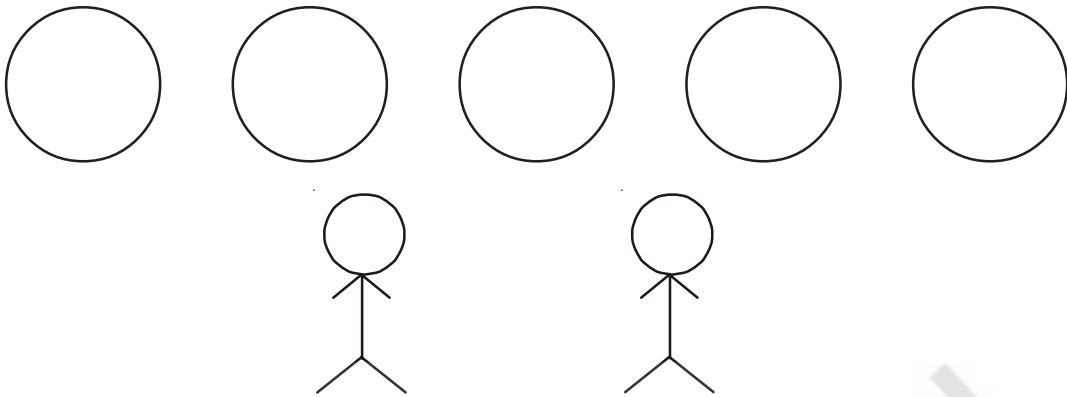


Kamala : When I divide 3 rotis among 2 people each person will get one full roti and one half roti.

I can write this as-

$$\frac{3}{2} = 1 + \frac{1}{2}$$

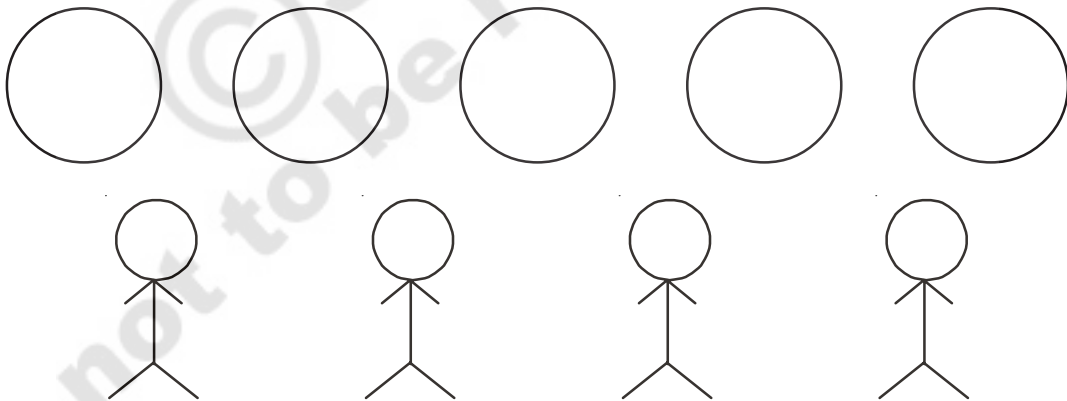
Now, you divide these 5 rotis equally among 2 people-



- (a) How many full rotis will each person get? _____
(b) How many half rotis will each person get. _____

So, $\frac{5}{2} = \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

Try to divide these 5 rotis among 4 people.



- (a) How many full rotis will each person get? _____
(b) How many one-fourth rotis will each person get. _____

So, $\frac{5}{4} = \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

Let us divide one watermelon into equal parts

Sonu likes watermelon. Her mother bought one from the market.

She cut it into two equal parts. She gave one part to Sonu and the other part to Koushik.



- (a) What part of the watermelon has Sonu got? _____
- (b) What part of the watermelon has Koushik got?

- (c) If there were 2 more people who had to be given watermelon equally, how many parts would the watermelon have to be divided into?

- (d) What part of the watermelon would each person get? _____



Now, divide this cake equally among four people.



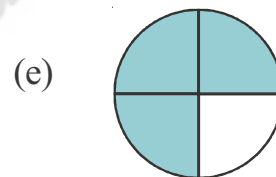
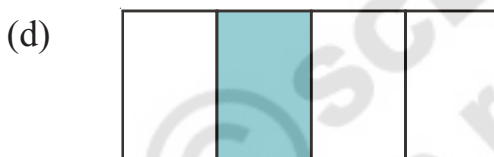
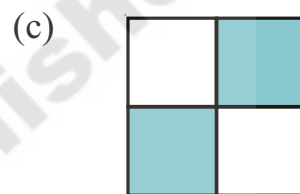
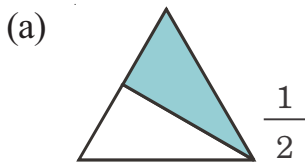
- (a) One cake divided into four equal parts is written as $1 \div 4$ and also as _____
- (b) On dividing the cake what part of the cake will each person get? _____
- (c) If a person eats 2 out of 4 parts of the cake, what part of the cake did she/he eat? _____
- (d) Shade this part on the cake. Is it equal to $\frac{1}{2}$ of the cake? _____
- (e) If one person eats 3 out of 4 parts of the cake, what part of the cake did she/he eat?

Try This

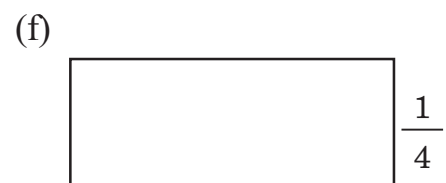
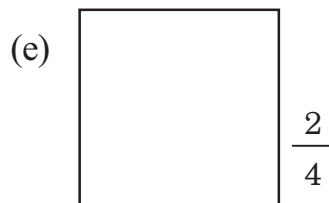
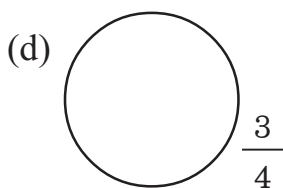
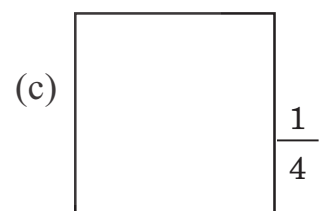
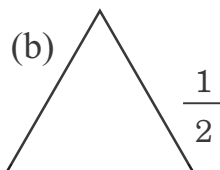
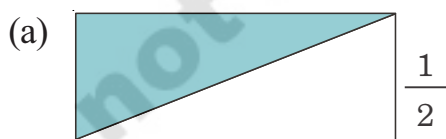
1. Take a piece of paper. Divide it into half in as many ways as possible.
2. Take another piece of paper. Divide it into four equal parts in as many ways as possible.

Do This

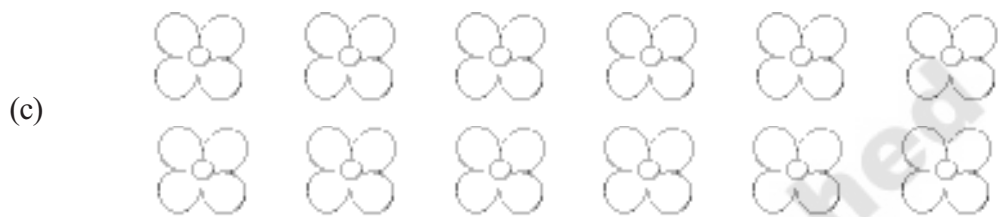
1. The figures given below have been divided into equal parts. What part of each figure is shaded? One has been done for you.



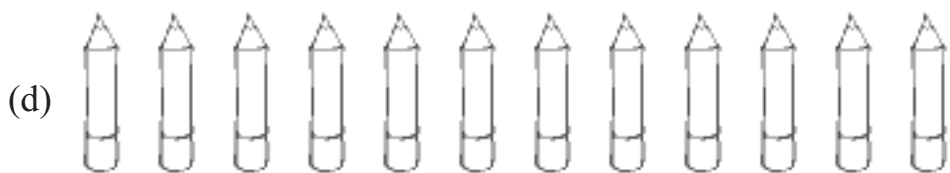
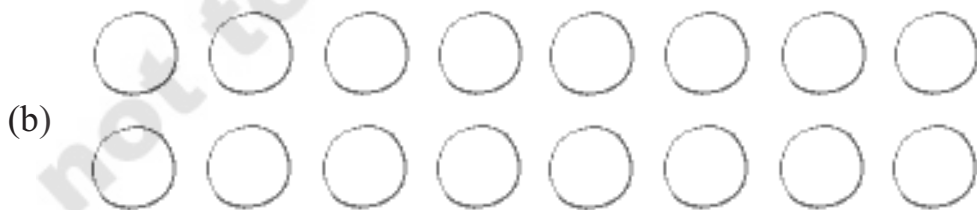
2. Colour that part of the figure that has been written below it. One has been done for you.



3. Colour $\frac{1}{2}$ of the figures given below.

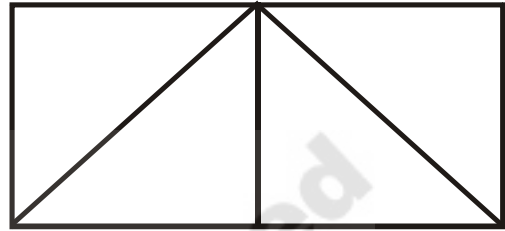
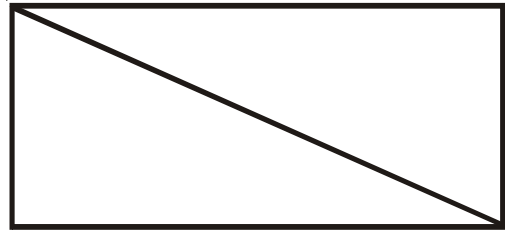


4. Colour $\frac{1}{4}$ of the figures given below.



Try This

1. Think of more ways in which a rectangle can be divided into two equal parts and do them.
2. Think of more ways in which a rectangle can be divided into four equal parts and do them.



Rani's birthday

Rani brought 40 chocolates on her birthday.

- (a) She distributed $\frac{1}{2}$ of the chocolates in her class. How many chocolates did Rani distribute in class? _____



- (b) She distributed $\frac{1}{4}$ of the chocolates to her teachers. How many chocolates did Rani distribute among her teachers? _____

What part of the cupboard is filled with books?

- (a) What part of the shelves is full of books? _____
- (b) What part of the shelves is empty? _____



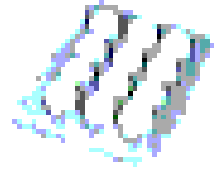
What part of the biscuit packet has been eaten?

- (a) If Saraswati and Komal have eaten 8 of the biscuits, what part of the biscuit packet have they eaten?

- (b) What part of the biscuit packet is remaining?



Exercise



1. Bhavani bought a dozen eggs. She used $\frac{1}{2}$ of the eggs to prepare omlets. How many eggs did she use? (1 dozen = 12)
2. Leela had 12 bananas. She ate one-fourth of them. How many did she eat?



3. Shiva had 8 hens. He sold $\frac{3}{4}$ of the hens. How many did he sell?



4. Abhishek earned ₹ 100 in a day. He spent $\frac{1}{2}$ of the money on food. How much money did he spend?
5. There are 20 pages in a chapter. Usha has read $\frac{1}{5}$ pages of the chapter. How many pages has Usha read?

Try This

1. What part of your classroom blackboard is empty right now?
2. What is the total number of children in your class? What part of your class is boys? What part of your class is girls?
3. What part of the children in your class are present today?
4. What part of the teachers in your school are present today?
5. Make 5 more problems as given above.

Jyothi teacher has written the grades of her Class 4 students in the register.

Akhila	A	Sonia	C	Uday	B	Sarala	A
Raju	A	Gopi	B	Anil	A	Urmila	B
Amzad	C	Leela	B	Deepthi	B	Ramesh	B
Vinay	B	Shameen	A	Sruthi	C	Srinu	A
Hampi	A	Pragna	C	Roja	B	Prasad	B
Rani	B	Fahim	A	Mangala	A	Kamala	B
Krishna	A	Komal	B	Kalpana	B	John	C

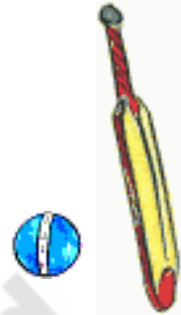
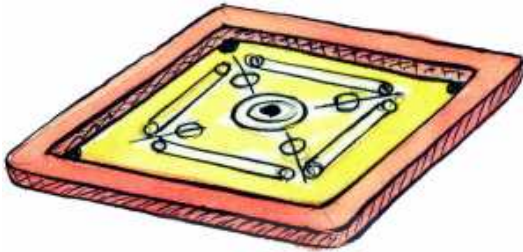
The Headteacher of her school asked her to report the number of students who have got A, B and C grades. To find this out, Jyothi makes a table and puts a tally mark for each grade she comes across as she goes down the list. She has made marks for Akhila, Raju, Amzad and Vinay according to their grade. Can you help the teacher in completing the table.

Grade	Tally marks	Number of students
A		
B		
C		

- How many children got A grade?
- How many children got B grade?
- How many children got C grade?

Which is your favourite game?

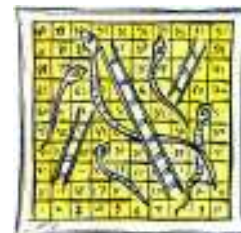
Make a list of all the children in your class. Ask each child their favourite game and record this against their name, for example, Sudhakar- skipping. Using this information, complete the table given below-



Name of game	Tally marks	Total

(a) Which is the most popular game among children of your class?

(b) Which is the least popular game among children of your class?

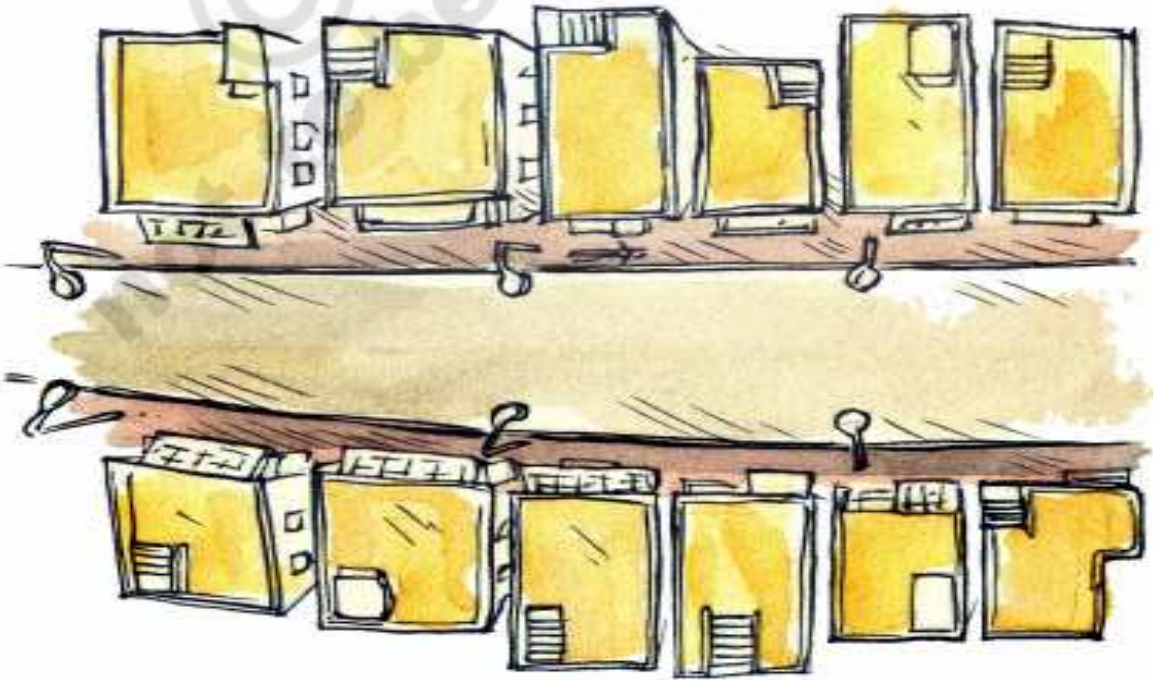


How big are the families that live around you?

Visit 20 houses in your locality. Find out how many people live in each house. Use this information and complete the table given below.

Family size	Tally marks	Number of families
7 members and above		
6 members		
5 members		
4 members		
3 members		
2 members		
1 member		

What conclusions can you draw from this data?



Picture Tables and Charts

Abdullah's Toy Shop

Abdullah has a small toy shop. He has 10 toys of each type in the beginning of May. The picture table given below provides information about the stock of toys at the end of the month.










- Which toy is most in stock at the end of the month?
- Which toy is least in stock at the end of the month?
- There were 10 of each of these toys in the beginning of the month. Looking at the stock of toys in the picture table can you say which toy has been sold most in the month?
- Which other toys are popular with children?

Helping Hands!

Class 4 students of Palampet Primary School were given a target of collecting ₹ 300 in a week for an orphanage home. They asked ₹ 5 donation from each person they approached.

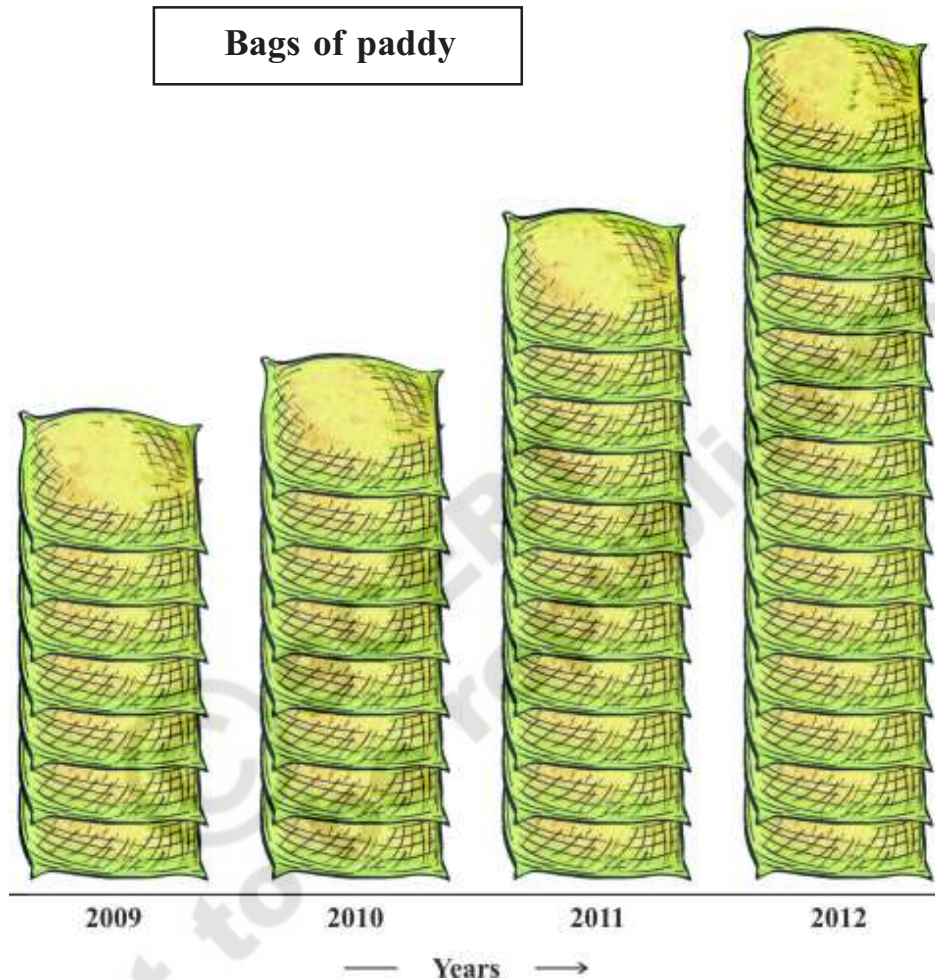
The picture table given below provides a description of how much money they collected on each day of the week.

Day	Money collected	Total money
SUN		
MON		
TUE		
WED		
THU		
FRI		
SAT		

- On which day was the collection highest?
- On which days did they collect the same amount of money?
- Did the class meet its target?

Bags of paddy

Mallaiah is a farmer. For four years he has been keeping a record of the production of paddy in his fields. Each bag is equal to 50 kg of paddy produced.

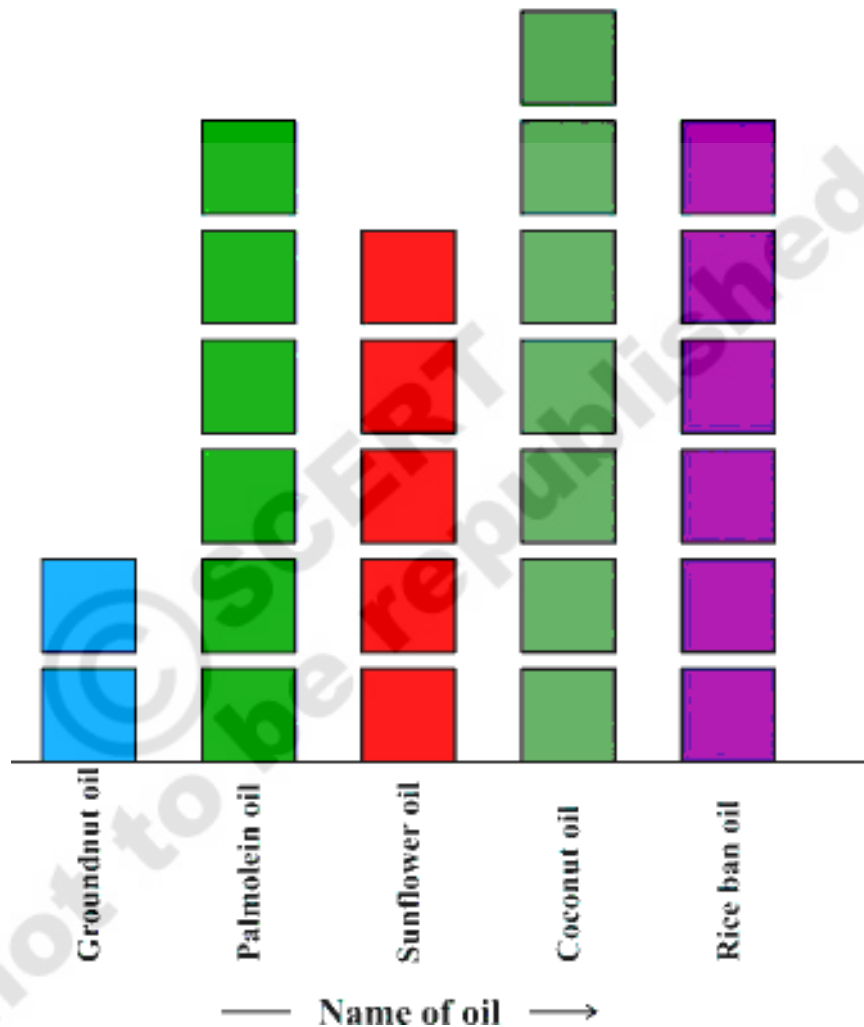


- In which year is the production of paddy highest? How much?
- In which year did the paddy production was double to that of 2009?
- Mallaiah's paddy production has steadily increased over the past four years. Can we draw this conclusion from the above picture chart?

Box Charts

How much oil is in stock?

An oil merchant sells groundnut, palmolein, sunflower, coconut and rice bran oil. The box chart given below provides a record of the stock of oil packets at the end of the week.



- Which oil is lying most in stock? _____
- Which oil is lying least in stock? _____
- If there were 30 packets of groundnut oil in the beginning of the week then how many have been sold in the week? _____
- If there were 20 packets of sunflower oil in the beginning of the week then how many have been sold in the week? _____