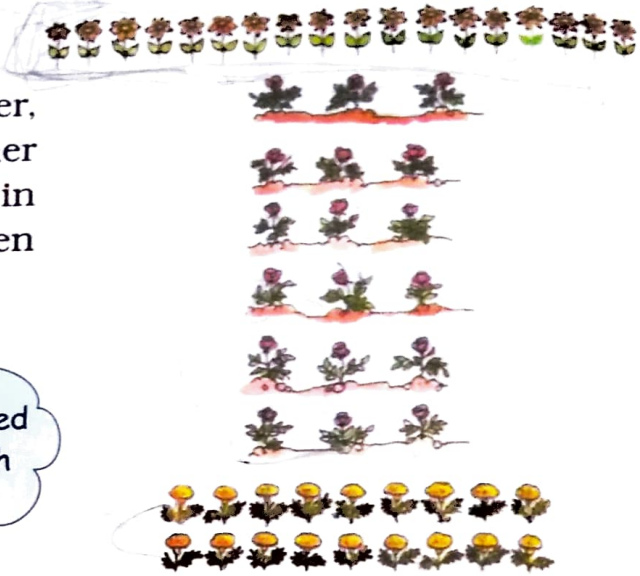
11 Tables and Shares

Shyama's Garden

Shyama has planted sunflower, rose and marigold plants in her garden. She has planted them in three flower-beds. Her garden looks like this.



See, how I planted 18 plants in each flower bed!

Each flower- bed has a different arrangement.

See how the roses are planted.

$18 = 6 \times 3$ So there are 6 rows with 3 plants each.

What are the ways in which the sunflower and marigold are planted?

$18 =$ 18 $\times$ 1 So there is 1 row with 18 plants.

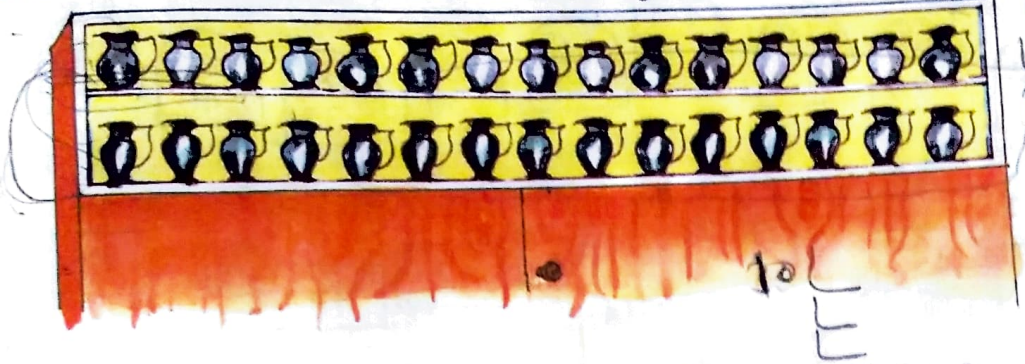
$18 =$ 9 $\times$ 2 So there are 2 rows with 9 plants each.

You too can make your own garden. Draw a garden, showing flower-beds with 48 plants. Each row should have the same number of plants.

The concept of multiplication can be related to the arrangement of things in an array. Some other problems, based on contexts like the arrangement of chairs, children in the school assembly, etc., can also be discussed.

Jars in the Shelf

Bheema made a shelf for 30 jars. This is a long shelf with two rows. Each row has the same number of jars.

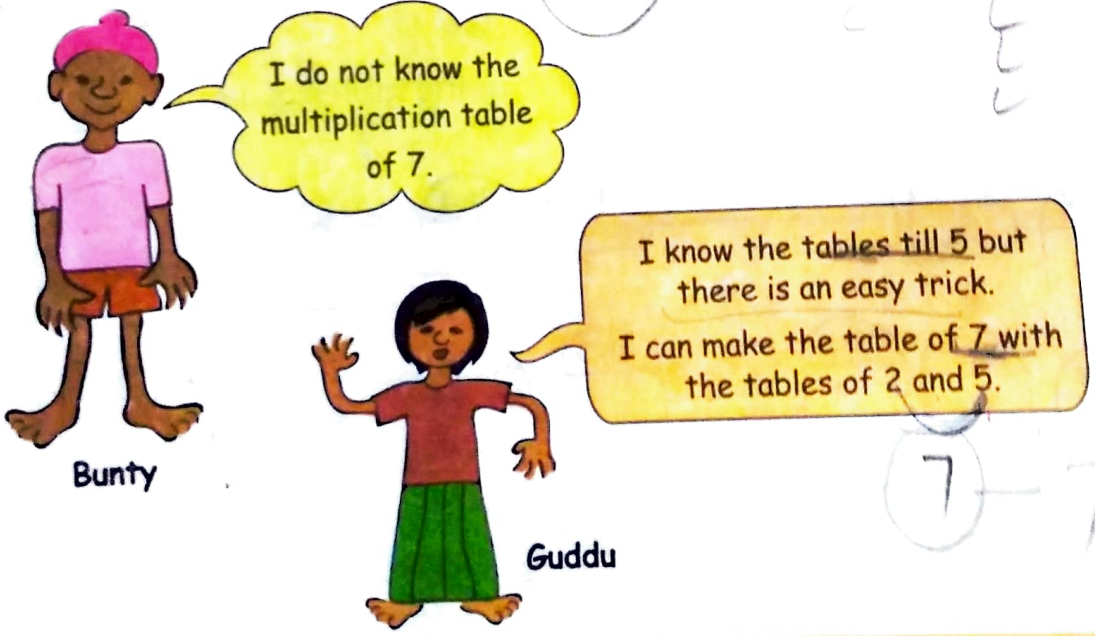


Can you think of other ways to make a shelf to keep 30 jars?

* Draw a shelf. Show how many jars you will keep in each row. How many rows are there?

  Have your friends drawn it in different ways?

Easy Tricks



Children will enjoy building new multiplication tables for themselves instead of only memorising them.

Table of 2

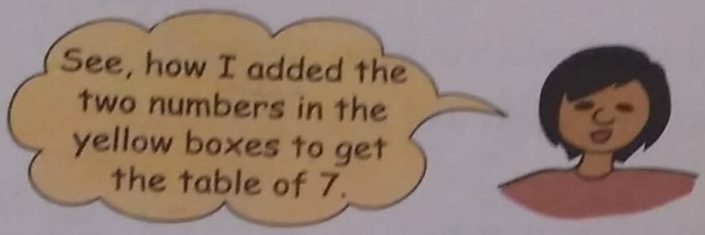
1×2	2×2	3×2	4×2	5×2	6×2	7×2	8×2	9×2	10×2
2	4	6	8	10	12	14	16	18	20

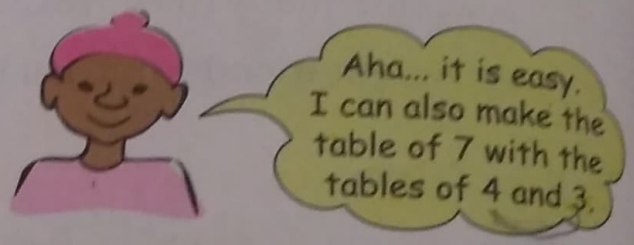
Table of 5

1×5	2×5	3×5	4×5	5×5	6×5	7×5	8×5	9×5	10×5
5	10	15	20	25	30	35	40	45	50

Table of 7

7	14	21	28	35	42	49	56	63	70





8 = [6+2=8, 4+4=8, 7+1=8]

Help Bunty to make the table of 7, using tables of 4 and 3.

Table of 4

1×4	2×4	3×4	4×4	5×4	6×4	7×4	8×4	9×4	10×4
4	8	12	16	20	24	28	32	36	40

Table of 3

1×3	2×3	3×3	4×3	5×3	6×3	7×3	8×3	9×3	10×3
3	6	9	12	15	18	21	24	27	30

Table of 7

7	14	21	28	35	42	49	56	63	70

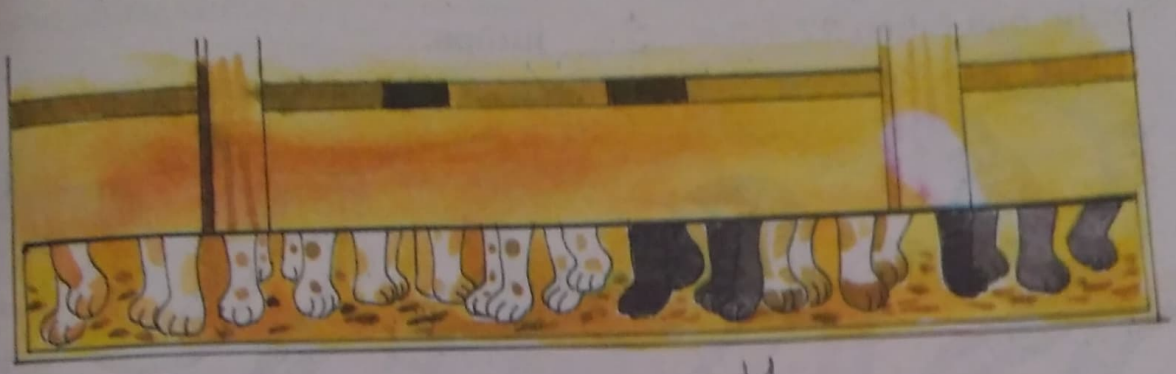
Which two tables will you use for writing the table of 12?

11+1=12, 10+2=12, 9+3=12

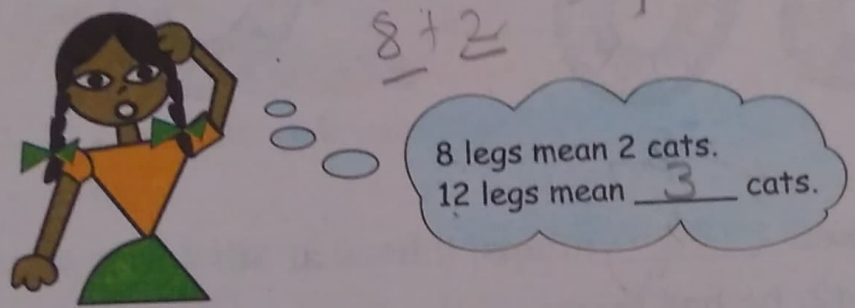
6+6=12, 8+4=12, 5+7=12

How Many Cats?

Some of Gayatri's cats were playing in a box. When she tried to count, all she could see were legs. She counted 28 legs. How many cats are there in the box?



8+2 = 4



How many legs?	4	8	12	16	20	24	28	32
How many cats?	1	2	3	4	5	6	7	8

So 28 legs mean 7 cats.

* Billo has kept his chickens in a box. He counted 28 legs. How many chickens are there? 14 chickens
* Leela has not gone to school for 21 days. For how many weeks was she away from school? 3 weeks

Encourage children to fill in the table and also proceed towards making generalisations. For example, they should be able to see that 48 legs would mean there are 12 cats, or vice versa. In fact, this forms the foundation for algebraic thinking in later years.

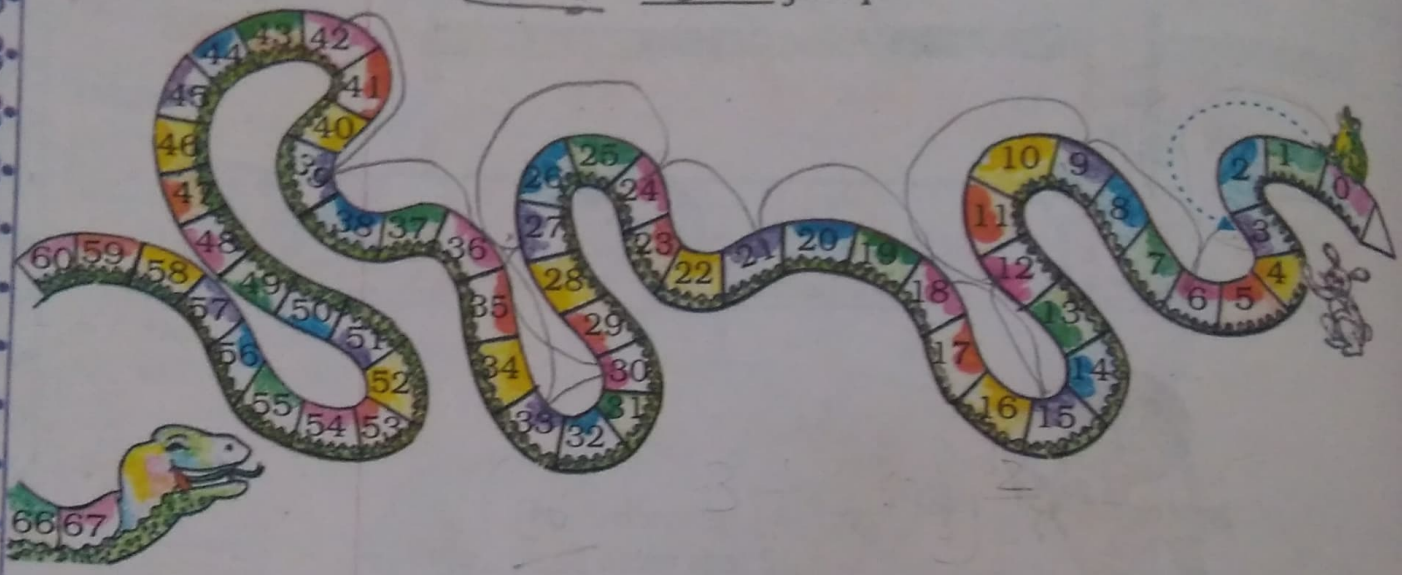
Jumping Animals

Do you remember the jumping animals of Class III?

A **frog** jumps 3 steps at a time starting from 0.

* Count the jumps he takes to reach 27. 9

So, he has taken $27 \div 3 =$ 9 jumps.



* He has taken 12 jumps, if he is at 36. $36 \div 3 = 12$
* If he is at 42, he has taken 14 jumps. $42 \div 3 = 14$

Starting from 0, a **rabbit** jumps 5 steps at a time.

* In how many jumps does he reach 25? $25 \div 5 = 5$
* He reaches 40 after taking 8 jumps. $5 \times 8 = 40$
* He needs 11 jumps to reach 55. $55 \div 5 = 11$

H.W.

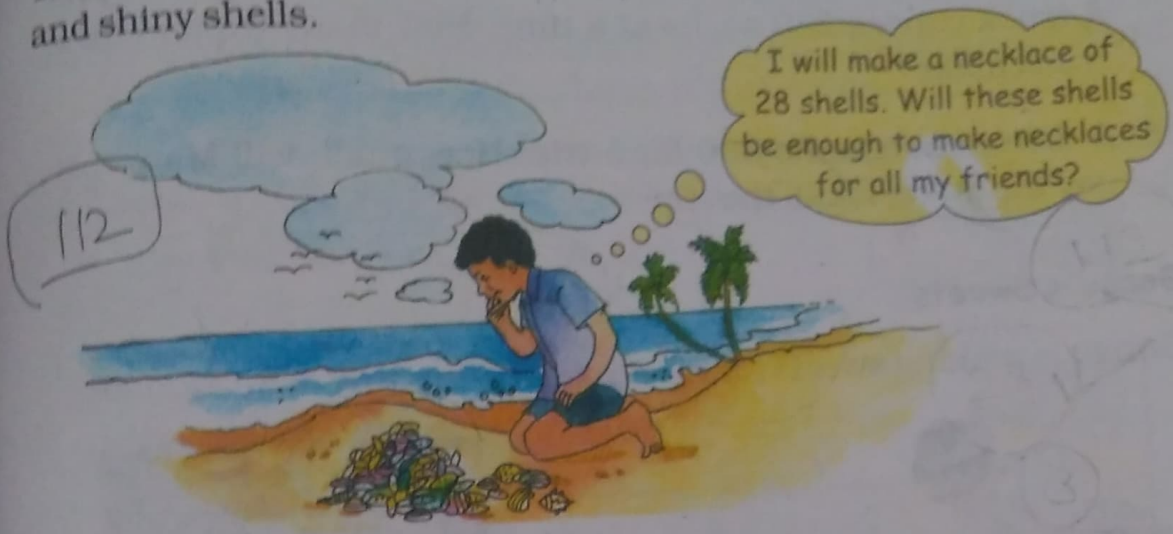
Practice Time

1) $28 \div 2 =$
2) $56 \div 7 =$
3) $48 \div 4 =$
4) $66 \div 6 =$
5) $96 \div 8 =$
6) $110 \div 10 =$

Children have done similar kinds of exercises for multiplication and division in Class III. Refer to pages 173-176, Math-Magic Class III, NCERT.

Sea Shells

Dhruv lives near the sea. He thought of making necklaces for his three friends. He looked for sea-shells the whole day. He collected 112 sea-shells by evening. Now he had many different colourful and shiny shells.



He took 28 shells for one necklace.

112 – 28 = 84

Now he was left with 84 shells. Again he took 28 more shells for the second necklace.

* How many shells are left now? 84 - 28 = 56

Then he took shells for the third necklace.

* So he was left with 28 shells. 56 - 28 = 28
* How many necklaces can Dhruv make from 112 shells? 4
* Are the shells enough for making necklaces for all his friends? Yes

12

17

Try these

A) Kannu made a necklace of 17 sea-shells. How many such necklaces can be made using 100 sea-shells?

Encourage children to solve questions based on division with large numbers, for which they do not know multiplication tables, using repeated subtraction. More problems based on real life contexts can be given.

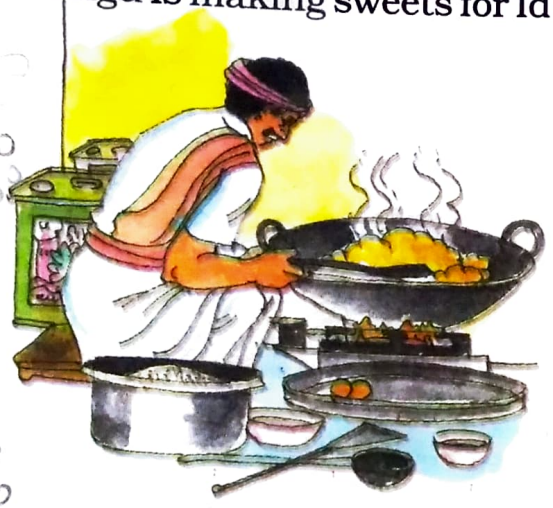
B) One carton can hold 85 soap bars. Shally wants to pack 338 soap bars. How many cartons does she need for packing all of them?

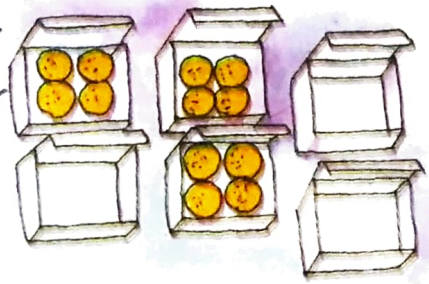
C) Manpreet wants 1500 sacks of cement for making a house. A truck carries 250 sacks at a time. How many trips will the truck make?

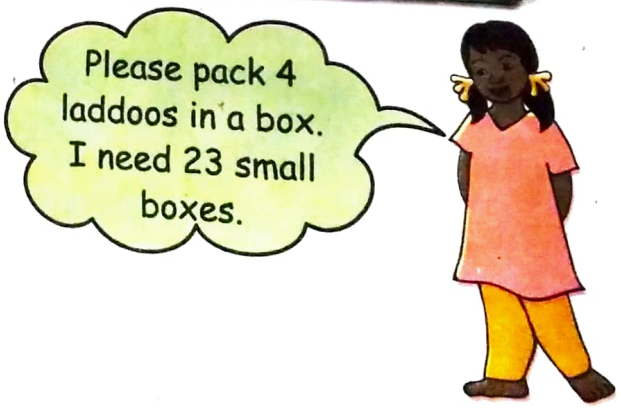
A driver charges Rs 500 for a trip. How much will Manpreet pay the driver for all the trips?

Gangu's Sweets

Gangu is making sweets for Id. He has made a tray of 80 *laddoos*.







Rabiya

* Are the sweets in the tray enough to pack 23 small boxes? No

* How many more sweets are needed? 92 - 80 = 12

For solving this problem, encourage children to use their own strategies — of making groups in the tray, using multiplication to do division or repeated subtraction, etc.

IV Lesson- 11 Tables and shares

Practice time -

A) Kannu made a necklace of 17 sea-shells. How many such necklaces can be made using 100 sea-shells?

Ans- 100 ÷ 17 = 5 naklaces

= 100 - 17 = 83
= 83 - 17 = 66
= 66 - 17 = 49
= 49 - 17 = 32

$$\begin{array}{r|l} & 5 \\ 17 & 100 \\ & 85 \\ \hline & 15 \end{array}$$

15 Remaining shells

= 31 - 17 = 15

B) One carton can hold 85 soap bars. Shelly wants to pack 338 soap bars. How many cartons does she need for packing all of them?

Ans-

Total soaps = 338

in 1st carton = 85

left = 338 - 85

= 253

2nd carton = 85

left = 253 - 85

= 168

3rd carton = 168 - 85

= 83

4th carton = 83

+ 2

85

Total carton required = 4

c) Manpreet wants 1500 sacks of cement for making a house. A truck carries 250 sacks at a time. How many trips will the truck make?

Ans-

Total cement sack needed = 1500

1st trip = 250

Remaining = 1500 - 250

= 1250

2nd trip = 250

left = 1250 - 2500

= 1000

3rd trip = 1000 - 250

left = 750

4th trip = 200 = 750 - 250

= 500

5th trip = 250

left = 500 - 250

= 250

1500

6th trip = 250

left = 250 - 250

= 0

= 1500 ÷ 250

$= \frac{1500}{250}$

$= \frac{30}{5} = 6$

Total trip = 6

A driver charges Rs 500 for a trip. How much will manpreet pay the driver for all the trips?

Ans-

for 1 trip manpreet pay = Rs 500

Total trips = 6

total payment = 500 × 6

= 3000 RS

* Gangu also has a bigger box in which he packs 12 *laddoos*. How many boxes does he need for packing 60 *laddoos*? 60 ÷ 12 = 5 boxes

9 | 2

Practice Time

1) Neelu brought 15 storybooks to her class. Today 45 students are present. How many children will need to share one book? 3 stu

2) A family of 8 people needs 60 kg wheat for a month. How much wheat does this family need for a week?

3) Razia wants change for Rs 500.

How many notes will she get if she wants in return —

(a) All 100 rupee notes? 5

(b) All 50 rupee notes? 10

(c) All 20 rupee notes? 25

(d) All 5 rupee notes? 100

* You have to distribute 72 tomatoes equally in 3 baskets. How many tomatoes will there be in each? 24 tomatoes

* There are 350 bricks in a hand-cart. Binod found the weight of a brick to be 2 kg. What will be the weight of all the bricks?

10/2 IV Lesson - 11 Tables and shares

Practice time -

Q.1. Neelu brought 15 storybooks to her class. Today 45 students are present. How many children will need to share one book?

Ans-

Total books = 15

Total students = 45

No. of students sharing one book = 45 ÷ 15

one book = 3 studen

Q.2. A family of 8 people need 60 kg wheat for a month. How much wheat does this family need for a week?

Ans-

Total wheat required = 60 kg

No. of weeks in a months = 4

wheat required per week = 60 ÷ 4

= 15

1 week wheat required = 15 kg

Q.3. Razia wants change for Rs 500. 500

How many notes will she get if she wants in return –

(a) All 100 rupees notes? 5 100

(b) All 50 rupees notes? 10 50

(c) All 20 rupees notes? 25 20

(d) All 5 rupees notes? 100 5

~~Q.4.~~ Ans – (a) 500 ÷ 100 = 5

(b) 500 ÷ 50 = 10

(c) 500 ÷ 20 = 25

(d) 500 ÷ 5 = 100

Q.4. You have to distribute 72 tomatoes equally in 3 baskets. How many tomatoes will there be in each?

Ans –

Total tomatoes = 72

Total baskets = 3

Tomatoes in 1 basket = 72 ÷ 3

= 24

$$3\overline{)72}\ 24$$

6

12

12

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Q.5. There are 350 bricks in a hand-cart. Binod found the weight of a brick to be 2 kg. What will be the weight of all the brick?

Ans-

Total bricks = 350

weight of 1 brick = 2 kg

Total weight = 350 × 2

= 700

Total weight = 700 kg to all brick.

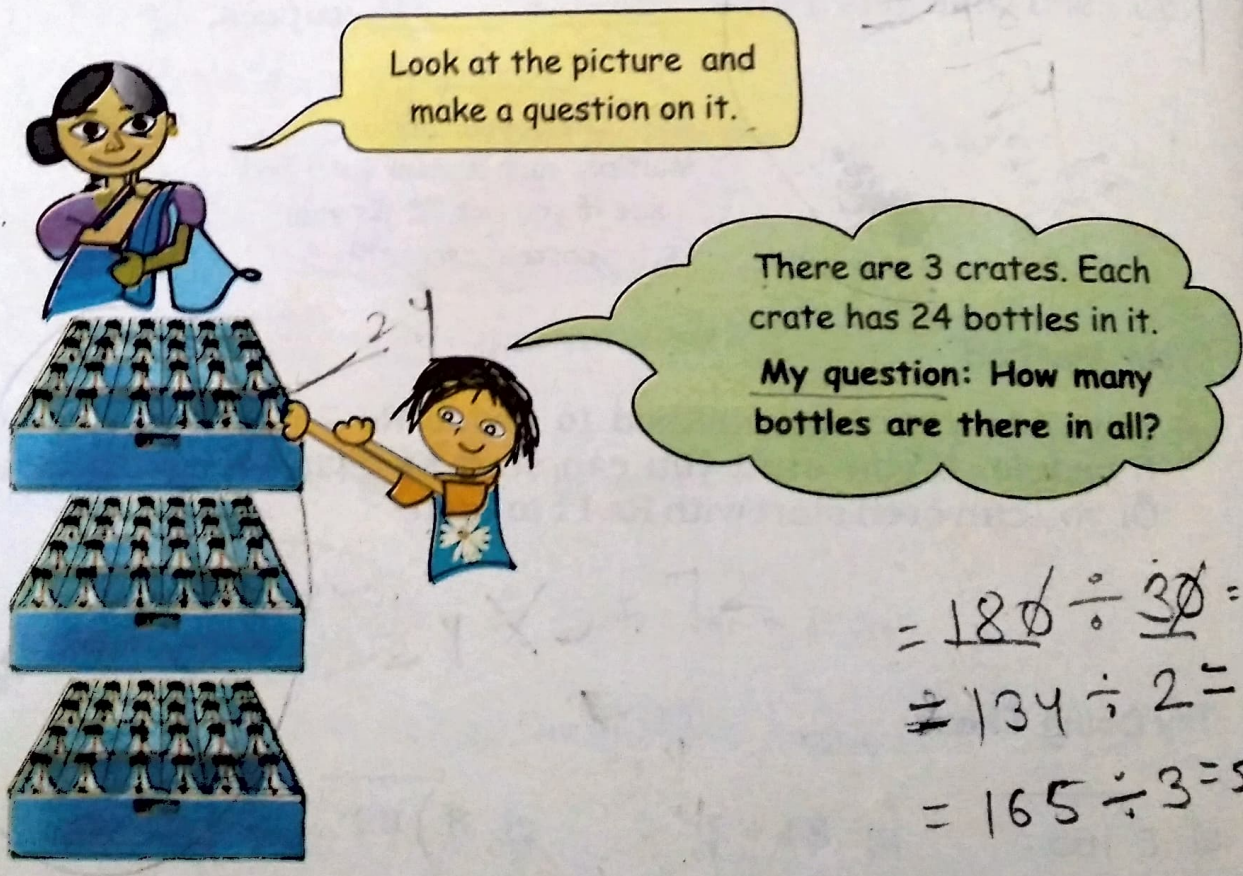
i) Meera made 204 candles to sell in the market. She makes packets of 6. How many packets will she make?

If she packs them in packets of 12, then how many packets will she make?

j) On Sports Day, 161 children are in the school playground. They are standing in 7 equal rows. How many children are there in each row?

Story Problems

Srishti's grandma is asking her to make problems.



Now you look at the other pictures and make questions like Srishti.

IV Lesson - 11 Tables and shares

Practice time -

Q. (i) (a) Meera made 204 candles to sell in the market. She makes packets of 6. How many packets will she make?

Ans -

Total candles = 204
candles in 1 packet = 6
Total packets = 204 ÷ 6

= 34 packets are required.

Q (b) If she packs them in packets of 12, then how many packets will she make?

Ans -

= 204 ÷ 12
= 17 packets

12 | 204
12
84
84
0

(ii) On sports day, 161 children are in the school playground. They are standing in 7 equal rows. How many children are there in each row?

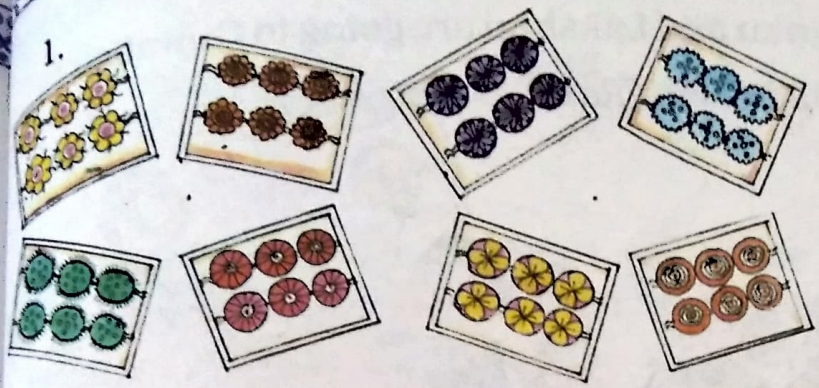
Ans -

Total childrens = 161
No. of rows = 7
No. of children in 1 row = 161 ÷ 7
= 23

= 23 children will be in 1 row

23
7 | 161
14
21
21

1.



There are 8 packets of *rakhis*.

Each packet has 6 *rakhis* in it.

Your question: How many rakhis are in total?

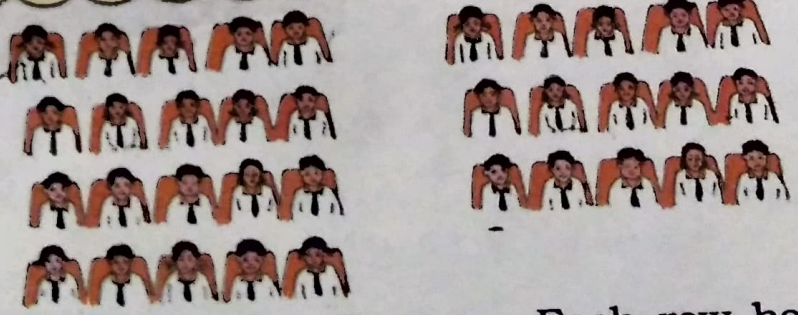
2.

There are 10 packets of sugar.

Saurabh paid 110 rupees for all the packets.

Your question: What is the cost of 1 packet?

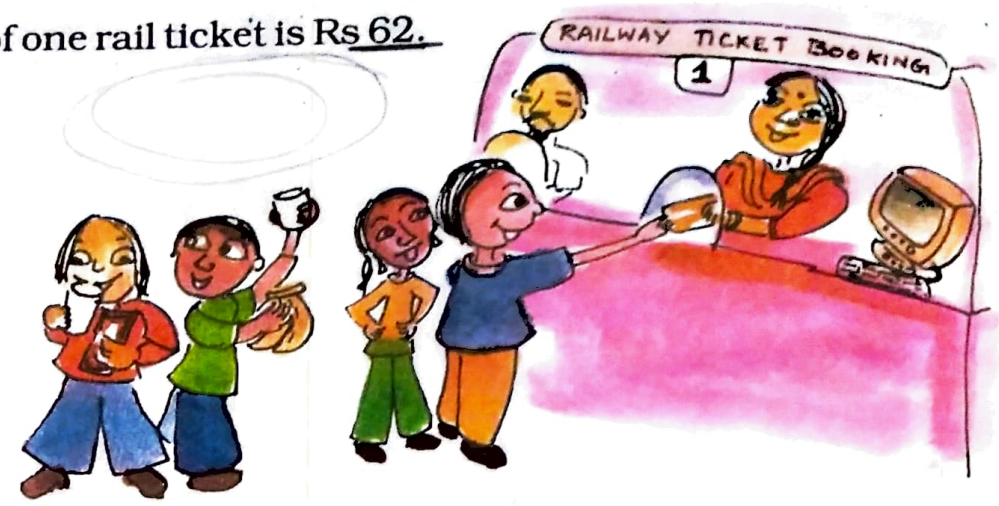
3.



There are 35 students in 7 rows. Each row has the same number of students.

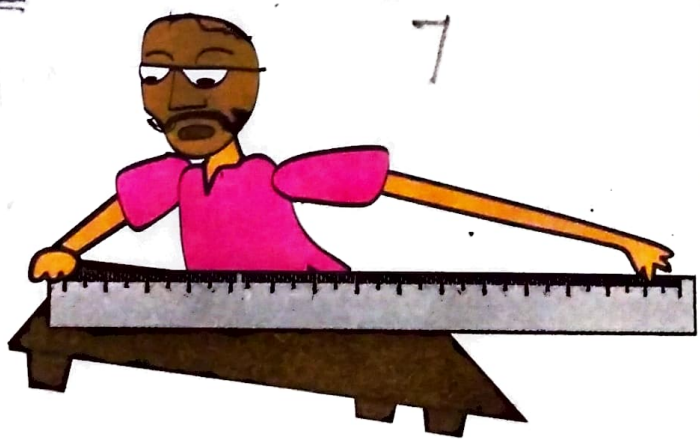
Your question: How many students are one row?

4. Hari, Seema, Chinku and Lakshmi are going to Guwahati.
The cost of one rail ticket is Rs 62.



Your question: what is the total cost of all the rail tickets?

5. One metre of cloth costs Rs 20. Lalbiak bought some cloth and paid Rs 140.



Your question: How many metres of cloth did Lalbiak buy?

Also guess the answers.