



Lesson-8

Division

Let us divide

Kon, Seuti, Rafiq, Joonmili and Lakshmi brought 15 mangoes from the garden and shared among themselves. They first shared 1 mango each among themselves. 10 mangoes were left. They again shared 1 more mango each among themselves. 5 mangoes were left. Now they shared the remaining 5 mangoes among themselves after which no mangoes were left. After sharing 15 mangoes in this way each of them got 3 mangoes.



Let us see how Kon, Seuti, Rafiq, Joonmili and Lakshmi shared 15 mangoes among themselves?



First time : After sharing 1 mango each, the number of mangoes left is $15 - 5 = 10$



Second time : After sharing 1 more mango each, the number of mangoes left is $10 - 5 = 5$



Third time : After sharing 1 more mango each again, the number of mangoes left is $5 - 5 = 0$

Find out

- How many mangoes were left after sharing the mangoes for the first time?
- How many mangoes were left after sharing the mangoes for the second time?
- After sharing how many times no mangoes were left?
- After sharing 15 mangoes among 5 of them, how many mangoes did each of them get?

We have seen that if 15 mangoes are divided among 5 children then each child will get 3 mangoes each
 $15 \div 3 = 5$



Do yourself

Divide 18 mangoes among

- (i) 6 children (ii) 3 children (iii) 2 children

Instruction to the teacher : Teachers will help the students to divide various things into different groups using concrete objects.

Division by Repeated Subtraction

<p>Let us see how many times we can take from a collection of 20 objects if we take 5 objects at a time.</p> <p>$20 \div 5 = ?$</p> <p>20 <u>-5</u> (i) 15 <u>-5</u> (ii) 10 <u>-5</u> (iii) 5 <u>-5</u> (iv) 0</p>	<p>Let us understand</p> <p>From a collection of 20 objects, we take 5 objects 4 times.</p> <p>After this no objects will be left.</p> <p>That means there are 4 groups of 5 objects in 20.</p> <p>We can also write in this way $20 \div 5 = 4$</p>	<p>$25 \div 5 = \square$</p> <p>25 <u>-5</u> (i) 20 <u>-5</u> (ii) 15 <u>-5</u> (iii) 10 <u>-5</u> (iv) 5 <u>-5</u> (v) 0</p> <p>Hence $25 \div 5 = \square$</p>	<p>$24 \div 6 = \square$</p>
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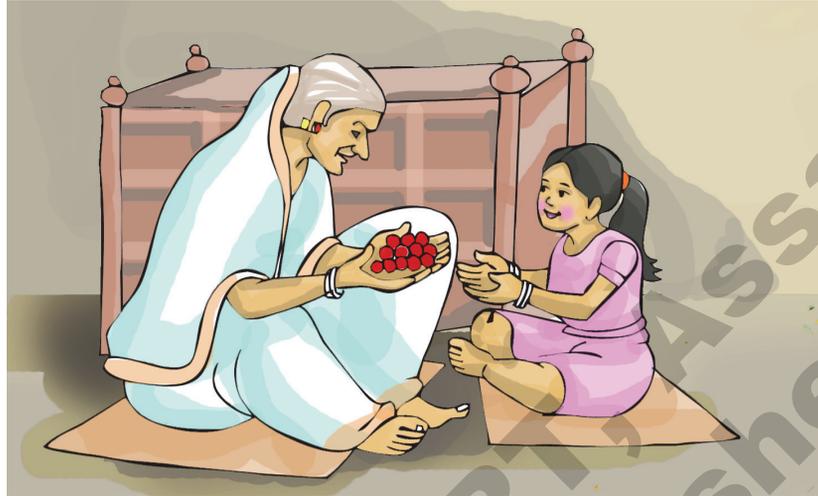
$18 \div 6 = \square$

$30 \div 5 = \square$

$50 \div 10 = \square$

Grandmother's Beads

Tagar's grandmother took out 12 beads from the chest and gave them to her. She asked Tagar to make necklaces with 4 beads each. Let us see how many necklaces did Tagar make.



First Necklace		Number of beads left $12-4=8$
Second Necklace		Number of beads left $8-4=4$
Third Necklace		Number of beads left $4-4=0$

Tagar made 3 necklaces with 12 beads

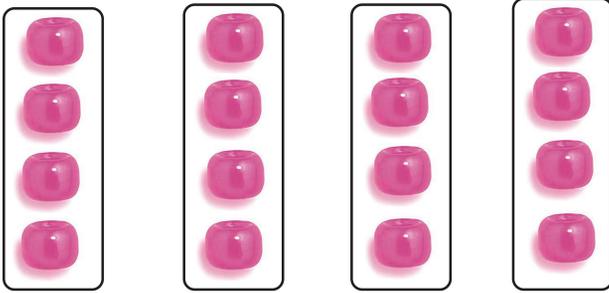
That means 4 beads were subtracted 3 times from 12 beads

We can also write it this way $12 \div 4 = 3$

If Tagar takes 3 beads each from 12 beads to make necklaces, then how many necklaces can she make?

First Necklace		Hence $12 \div 3 = 4$
Second Necklace		
Third Necklace		
Fourth Necklace		

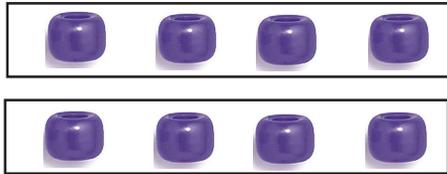
- ✦ How many necklaces can be made with 4 beads from 16 beads?



That means

$$16 \div 4 = \boxed{}$$

- ✦ How many necklaces can be made with 4 beads from 8 beads?



That means

$$8 \div 4 = \boxed{}$$

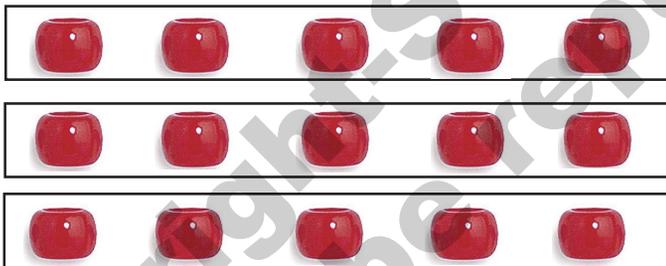
- ✦ How many necklaces can be made with 2 beads from 10 beads?



That means

$$10 \div 2 = \boxed{}$$

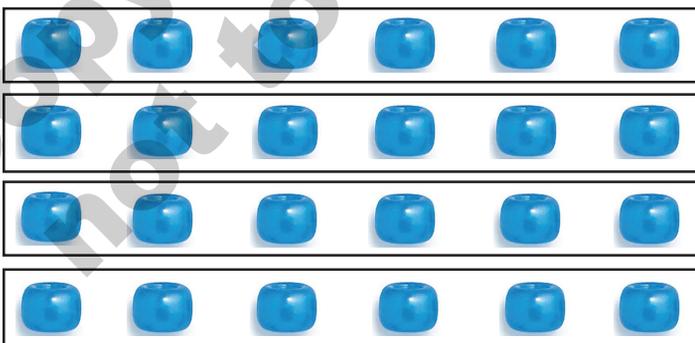
- ✦ How many necklaces can be made with 5 beads from 15 beads?



That means

$$15 \div 5 = \boxed{}$$

- ✦ How many necklaces can be made with 6 beads from 24 beads?



That means

$$24 \div 6 = \boxed{}$$

Instruction to the teacher : Teacher will divide the class into groups and give each group about 2,3,4,6,12 seeds, sticks, leaves etc to do the task of division.



Look at the picture and write

- ◆ How many *pithas* are there ?.....
If we divide *pithas* among Karabi and Kamal, how many *pithas* will each of them get ?.....
How many *pithas* will remain?.....



- ◆ How many children are waiting to sit on the boat ?
How many boats are there?
If 4 children can sit on one boat how many children can sit ?
How many children will not be able to sit ?

Let us divide using multiplication tables

(i) $16 \div 4$

Let us see how many 4's are there in 16 with the help of multiplication table.

There are 4 times 4 in 16.

We can write the process of dividing in the following way

$$\begin{array}{r} 4 \rightarrow \text{Quotient} \\ \text{Divisor} \rightarrow 4 \quad \overline{) 16 \rightarrow \text{Dividend}} \\ \underline{-16} \\ 0 \rightarrow \text{Remainder} \end{array}$$

$$\begin{array}{l} 4 \times 1 = 4 \\ 4 \times 2 = 8 \\ 4 \times 3 = 12 \\ 4 \times 4 = 16 \end{array}$$

(ii) $26 \div 5$

Let us see how many 5's are there in 26 with the help of multiplication table.

There are 5 times 5 in 26.

After dividing 26 for 5 times the remainder is 1

$$\begin{array}{r} 5 \rightarrow \text{Quotient} \\ \text{Dividend} \rightarrow 5 \quad \overline{) 26 \rightarrow \text{Divisor}} \\ \underline{-25} \\ 1 \rightarrow \text{Remainder} \end{array}$$

$$\begin{array}{l} 5 \times 1 = 5 \\ 5 \times 2 = 10 \\ 5 \times 3 = 15 \\ 5 \times 4 = 20 \\ 5 \times 5 = 25 \end{array}$$



Divide using $\overline{)}$ symbol

$36 \div 3$

$\begin{array}{r} 1 \\ 3 \overline{) 36} \\ \underline{3} \\ 0 \end{array}$	$\begin{array}{r} 12 \\ 3 \overline{) 36} \\ \underline{-3\downarrow} \\ 6 \\ \underline{-6} \end{array}$
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Quotient = 12, Remainder = 0

$37 \div 4$

$73 \div 8$

$57 \div 6$

$67 \div 10$

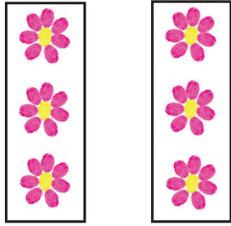
$19 \div 9$

$36 \div 7$

$43 \div 5$

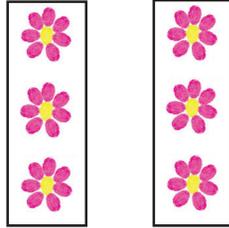
Let us look at the relation between division and multiplication

Multiplication fact



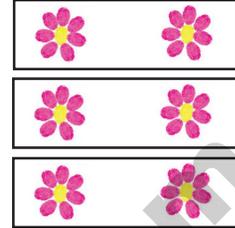
There are 3 flowers 2 times
 $2 \text{ times } 3 = 6$
 $2 \times 3 = 6$

Division fact

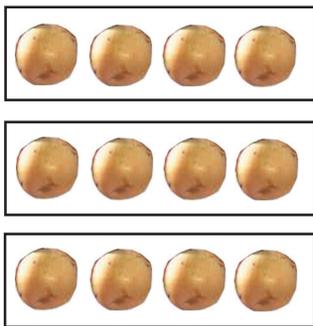


6 flowers divided into 2 equal groups gives 3 flowers in each
 $6 \div 2 = 3$

Division fact



6 flowers divided into 3 equal groups gives 2 flowers in each
 $6 \div 3 = 2$



There are 4 *Letekus* 3 times
 $3 \text{ times } 4 = 12$
 $3 \times 4 = 12$



12 *letekus* divided into 3 equal groups gives 4 *letekus* in each
 $12 \div 3 = 4$



12 *letekus* divided into 4 equal groups gives 3 *letekus* in each
 $12 \div 4 = 3$

Do Yourself



There are 5 flowers 3 times



15 flowers divided into 3 equal groups gives 5 flowers in each



15 flowers divided into 5 equal groups gives 3 flowers in each

Find out the multiplication and division facts

$18 \times 3 = 54$
$54 \div 18 = 3$
$54 \div 3 = 18$

$4 \times 5 = 20$

$6 \times 9 = 54$

$7 \times 8 = 56$

$9 \times 5 = 45$

$10 \times 7 = 70$

Fill up the blanks

(a) $2 \times 3 = 6$
 $6 \div 2 = 3$
 $6 \div 3 = 2$

(b) $3 \times 4 = \dots$
 $12 \div 3 = \dots$
 $12 \div 4 = \dots$

(c) $3 \times \dots = 21$
 $21 \div 7 = \dots$
 $21 \div \dots = 7$

(d) $6 \times 5 = \dots$
 $30 \div 5 = \dots$
 $\dots \div 6 = 5$

((e) $\dots \times 6 = 42$
 $\dots \div 6 = 7$
 $42 \div 7 = \dots$

((f) $4 \times \dots = 72$
 $\dots \div 4 = \dots$
 $72 \div \dots = 4$

Solve the problems

- (a) If 30 chocolates are kept in 3 boxes then how many chocolates will each box contain?
- (b) 16 saplings of rose plant are to be planted in 4 rows. How many saplings can be planted in each row?
- (c) If one student is given 2 biscuits along with tea then among how many students can 50 biscuits be divided?
- (d) One week has 7 days. How many weeks are there in 35 days?
- (e) Cost of 10 numbers of sweetmeat is Rs 100. What is the cost of 1 sweetmeat?
- (f) Anupam had 10 balloons with him. He gave 2 balloons each to his friends. How many friends did he have?



Solve the riddles

- (a) If 20 plums are divided among 5 boys. How many plums will each boy get?
- (b) There are 6 coaches and 30 students. For each coach to have equal number of students. How many students will sit in one coach?
- (c) There are 24 wheels and each rickshaw needs 3 wheels. If all the wheels are fitted, how many rickshaws will there be in all?

Try

The product of 2 numbers is 375. If one number is 25, what is the other number?
Look at the table below and find the answers to the questions given below

1	6	11	16	21	26	31	36	41	46
2	7	12	17	22	27	32	37	42	47
3	8	13	18	23	28	33	38	43	48
4	9	14	19	24	29	34	39	44	49
5	10	15	20	25	30	35	40	45	50

- (a) Numbers divisible by 5
10,15,.....
- (b) Numbers divisible by 6
.....
- (c) Numbers divisible by 7
.....
- (d) Numbers divisible by 8
.....
- (e) Numbers divisible by 9
.....
- (f) Numbers divisible by 10
.....



Solve the problems

Rangpi plucked 81 oranges from the orchard and put them in 9 baskets equally. How many oranges are there in each basket?

28 olives were shared equally among few girls. If each girl gets 4 olives then how many girls were there?

2 boys bought a book from their friend. If the cost of the book is Rs 140 then how much money does each boy has to pay?

If 4 ribbons cost Rs 60 then what is the cost of 1 ribbon? What will be cost of 6 such ribbons?

There are 35 tyres in a shop. One car needs 4 tyres. How many tyres can be fitted in how many cars and how many tyres will be left?

Kartik has 60 photos. If he sticks 8 photos on one page of an album, how many pages will be covered completely and how many photos will remain?

If 64 children are divided into 8 groups, how many groups will be there?

If 4 packets contain 100 balloons then how many balloons are there in 1 packet? How many packets will contain 300 balloons?

The cost of 3 coconuts is Rs 96. What is the cost of 1 coconut? How many coconuts can be purchased with Rs 160?

Mallika's uncle brought 14 bamboos to fence the garden on all four sides. If one side needs 3 bamboos, how many bamboos will be needed to fence four sides of the garden and how many bamboos will be left?

If 21 balloons are shared among 6 children then how many balloons will each child get and how many will be left?

