Chapter 7: Raksha Bandhan

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Exercise 7.1 — Let's Make Rakhis

Q1 Each Rakhi uses 1 flower. We need to make 5 Rakhis. How many flowers do they need? (1 + 1 + 1 + 1 + 1 = ?, or 5 × 1 = ?)

SOLUTION

We need 1 flower for each Rakhi.
For 5 Rakhis: 1 + 1 + 1 + 1 + 1 = 5
This is the same as 5 times 1 = 5 × 1 = 5
5 flowers. 5 × 1 = 5

Q2 Each Rakhi uses 2 threads. We need to make 5 Rakhis. How many threads do they need? (2 + 2 + 2 + 2 + 2 = ?, or 5 × 2 = ?)

SOLUTION

We need 2 threads for each Rakhi.
For 5 Rakhis: 2 + 2 + 2 + 2 + 2 = 10
This is the same as 5 times 2 = 5 × 2 = 10
10 threads. 5 × 2 = 10

Q3 Each Rakhi uses 4 beads. We need to make 5 Rakhis. How many beads do they need? (4 + 4 + 4 + 4 + 4 = ?, or 5 × 4 = ?)

SOLUTION

We need 4 beads for each Rakhi.
For 5 Rakhis: 4 + 4 + 4 + 4 + 4 = 20
This is the same as 5 times 4 = 5 × 4 = 20
20 beads. 5 × 4 = 20

Q4 Try it Out! For making 10 such Rakhis, how many flowers, threads and beads are needed?

SOLUTION

Flowers: 10 × 1 = 10 flowers
Threads: 10 × 2 = 20 threads
Beads: 10 × 4 = 40 beads
10 flowers, 20 threads, 40 beads

Q5 There are 30 flowers, 30 threads and 30 beads. How many Rakhis can you make with this material?

SOLUTION

Each Rakhi needs 1 flower, 2 threads and 4 beads.
With 30 flowers we can make 30 ÷ 1 = 30 Rakhis.
With 30 threads we can make 30 ÷ 2 = 15 Rakhis.
With 30 beads we can make 30 ÷ 4 = 7 Rakhis (with 2 beads left over).
The smallest number limits us: beads run out first after 7 Rakhis.
7 Rakhis (beads are the limiting material)

Exercise 7.2 — Laddoos — Counting and Sharing

Q1 How would we count the laddoos in a box arranged in 3 rows of 3? (3 + 3 + 3 = ?, or 3 × 3 = ?)

SOLUTION

The laddoos are arranged in 3 equal rows with 3 in each row.
3 + 3 + 3 = 9
This is 3 times 3: 3 × 3 = 9
9 laddoos. 3 × 3 = 9

Q2 Please give me 2 boxes of laddoos. Each box has 9 laddoos. How many laddoos are there in 2 boxes? (9 + 9 = ?, or 2 × 9 = ?)

SOLUTION

Each box has 9 laddoos.
2 boxes: 9 + 9 = 18
This is 2 times 9: 2 × 9 = 18
18 laddoos. 2 × 9 = 18

Q3 After Atya and children come, there will be 9 people in the house. When 18 laddoos are distributed equally to all, how many will each person get? (18 ÷ 9 = ?)

SOLUTION

Total laddoos = 18, total people = 9.
Distribute equally: give 1 to each person at a time, 2 rounds.
18 equally shared by 9 = 2 each.
18 ÷ 9 = 2
2 laddoos each. 18 ÷ 9 = 2

Exercise 7.3 — Try it Out! — Kaju Katlis

Q1 There are 20 kaju katlis. Distribute them equally among 5 people. How many will each get? (20 ÷ 5 = ?)

SOLUTION

Total kaju katlis = 20, people = 5.
Give 1 to each person at a time: 4 rounds of 5.
20 ÷ 5 = 4
4 kaju katlis each. 20 ÷ 5 = 4

Exercise 7.4 — Let us Do — Distributing Sweets

Q1 Distribute all the kaju katlis equally among 4 people. There are 16 kaju katlis. How many kaju katlis will each get? (16 ÷ 4 = ?)

SOLUTION

Total kaju katlis = 16, people = 4.
Round 1: give 1 each → 4 given, 12 left.
Round 2: give 1 each → 4 given, 8 left.
Round 3: give 1 each → 4 given, 4 left.
Round 4: give 1 each → 4 given, 0 left.
Each person received 4 kaju katlis.
16 ÷ 4 = 4
4 kaju katlis each. 16 ÷ 4 = 4

Q2 Distribute 15 pedas in plates equally among 5 people. How many pedas will each get? (15 ÷ 5 = ?)

SOLUTION

Total pedas = 15, people = 5.
Round 1: give 1 each → 5 given, 10 left.
Round 2: give 1 each → 5 given, 5 left.
Round 3: give 1 each → 5 given, 0 left.
Each person received 3 pedas.
15 ÷ 5 = 3
3 pedas each. 15 ÷ 5 = 3

Exercise 7.5 — Let Us Think — Cycles and Jalebis

Q1 Each cycle needs 2 wheels. How many cycles can be fitted with 12 wheels? (12 ÷ 2 = ?)

SOLUTION

Each cycle needs 2 wheels.
12 wheels ÷ 2 wheels per cycle = 6 cycles.
12 ÷ 2 = 6
6 cycles. 12 ÷ 2 = 6

Q2 Look at the picture carefully. Count the number of jalebis. They are in 6 groups of 4. How many jalebis are there? (4 + 4 + 4 + 4 + 4 + 4 = ?, or 6 × 4 = ?)

SOLUTION

The jalebis are arranged in 6 equal groups with 4 in each group.
4 + 4 + 4 + 4 + 4 + 4 = 24
This is 6 times 4: 6 × 4 = 24
24 jalebis. Figure shows 6 plates, each with 4 jalebis arranged in a 2×2 group. 4 + 4 + 4 + 4 + 4 + 4 = 24. 6 × 4 = 24. (Existing answer confirmed correct.)

Q3 Dhara's family has 9 members. They have bought 24 jalebis. Are there enough for everyone to have 4 each? How many more should she buy?

SOLUTION

Jalebis needed for 9 people at 4 each: 9 × 4 = 36
Jalebis available: 24
24 < 36, so they are NOT enough.
Extra jalebis needed: 36 − 24 = 12
No, not enough. Dhara should buy 12 more jalebis so everyone gets 4.

Exercise 7.6 — Plants in the Garden — Multiplication Both Ways

Q1 Dhara counts the plants in a flower bed as 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 (8 groups of 6). Gopal counts as 8 + 8 + 8 + 8 + 8 + 8 (6 groups of 8). Who is correct? What is the total?

SOLUTION

Dhara's way: 8 times 6 = 8 × 6 = 48
Gopal's way: 6 times 8 = 6 × 8 = 48
Both are correct! 8 × 6 = 6 × 8 = 48
The order of multiplication does not change the answer.
Both are correct. There are 48 plants. 8 × 6 = 6 × 8 = 48

Exercise 7.7 — Visit to a Farm — Times-2 Table

Q1 Complete the times-2 table by counting chickens on the farm: 1 × 2 = ?, 2 × 2 = ?, 3 × 2 = ?, 4 × 2 = ?, 5 × 2 = ?, 6 × 2 = ?, 7 × 2 = ?, 8 × 2 = ?, 9 × 2 = ?, 10 × 2 = ?

SOLUTION

Each group adds 2 more chickens:

1 × 2 = 2

2 × 2 = 4

3 × 2 = 6

4 × 2 = 8

5 × 2 = 10

6 × 2 = 12

7 × 2 = 14

8 × 2 = 16

9 × 2 = 18

10 × 2 = 20

2, 4, 6, 8, 10, 12, 14, 16, 18, 20

Exercise 7.8 — Skip Jumping Game — Times-3 Table

Q1 Dhara is skip jumping by 3 on a number track from 0 to 20. Complete the table: 1 jump → 3, 2 jumps → 6, 3 jumps → ?, 4 jumps → ?, 5 jumps → ?, 6 jumps → ?, 7 jumps → ?, 8 jumps → ?, 9 jumps → ?, 10 jumps → ?

SOLUTION

Each jump adds 3 to the previous number:
1 jump → 3 (= 1 × 3)
2 jumps → 6 (= 2 × 3)
3 jumps → 9 (= 3 × 3)
4 jumps → 12 (= 4 × 3)
5 jumps → 15 (= 5 × 3)
6 jumps → 18 (= 6 × 3)
7 jumps → 21 (= 7 × 3)
8 jumps → 24 (= 8 × 3)
9 jumps → 27 (= 9 × 3)
10 jumps → 30 (= 10 × 3)
3, 6, 9, 12, 15, 18, 21, 24, 27, 30

Exercise 7.9 — Let us Do — Skip Jumping

Q1 Guess and write the next number Dhara will jump onto after 24 (she is skip jumping by 3).

SOLUTION

Dhara jumps by 3 each time.
After 24: 24 + 3 = 27
27

Q2 Is there a pattern in the numbers 3, 6, 9, ...? Describe it.

SOLUTION

Yes, there is a clear pattern.
Each number is 3 more than the previous one.
These are the multiples of 3 (the times-3 table).
The ones digits cycle: 3, 6, 9, 2, 5, 8, 1, 4, 7, 0 and then repeat.
Yes — each number increases by 3. These are multiples of 3.

Q3 How many steps forward is Dhara jumping each time?

SOLUTION

Dhara lands on 3, 6, 9, 12, … Each landing is 3 more than the last.
So she jumps 3 steps forward each time.
3 steps forward each time

Q4 Continue skip jumping by 6 on the number track (draw the jumps). Write the numbers landed on.

SOLUTION

Starting from 0, skip jumping by 6:
0 → 6 → 12 → 18 → 24 → 30 → ...
The numbers are: 0, 6, 12, 18, 24 (within 0–24 track shown)
Within the 0–25 snake track shown, skip jumping by 6 lands on: 0, 6, 12, 18, 24. The track ends at 25, so 30 is not reachable on it. Draw arcs of equal size (spanning 6 steps each) from 0→6, 6→12, 12→18, 18→24.

Q5 Can skip jumping by 6 be used to form the times-6 table? Write the times-6 table in your notebook.

SOLUTION

Yes! Each jump of 6 gives the next multiple of 6.
1 × 6 = 6
2 × 6 = 12
3 × 6 = 18
4 × 6 = 24
5 × 6 = 30
6 × 6 = 36
7 × 6 = 42
8 × 6 = 48
9 × 6 = 54
10 × 6 = 60
Yes. Times-6 table: 6, 12, 18, 24, 30, 36, 42, 48, 54, 60

Q6 Is there repeated addition happening? Make the times-4 table using repeated addition.

SOLUTION

Yes, skip jumping by 4 adds 4 each time — that is repeated addition.
1 × 4 = 4
2 × 4 = 4 + 4 = 8
3 × 4 = 4 + 4 + 4 = 12
4 × 4 = 16
5 × 4 = 20
6 × 4 = 24
7 × 4 = 28
8 × 4 = 32
9 × 4 = 36
10 × 4 = 40
Times-4 table: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40

Q7 Look at the number line. Gopal is doing skip jumping of _____ steps. After 27 he will jump on _____, _____.

SOLUTION

From the number-line illustration the highlighted positions are multiples of a fixed step.
The sequence shown ends at 27; looking at the pattern the step size is likely 9 (multiples: 9, 18, 27, …).
After 27: 27 + 9 = 36, then 36 + 9 = 45.
Gopal is skip jumping by 9 steps. The number line (0–50) shows 3 equal dashed arcs landing at

9, 18, 27. Each arc spans 9 units. After 27 he will jump on 36, then 45. (Existing answer confirmed correct.)

Q8 What times table can you construct from Gopal's jumps (jumping by 9)? Make it in your notebook.

SOLUTION

1 × 9 = 9
2 × 9 = 18
3 × 9 = 27
4 × 9 = 36
5 × 9 = 45
6 × 9 = 54
7 × 9 = 63
8 × 9 = 72
9 × 9 = 81
10 × 9 = 90
Times-9 table: 9, 18, 27, 36, 45, 54, 63, 72, 81, 90

Q9 Dhara also skip jumps. Gopal notes down: 32, 40, 48, 56. By what number was Dhara skip jumping? Construct the times table of this number.

SOLUTION

Find the step: 40 − 32 = 8, 48 − 40 = 8, 56 − 48 = 8.
Dhara is skip jumping by 8.
Times-8 table:
1 × 8 = 8
2 × 8 = 16
3 × 8 = 24
4 × 8 = 32
5 × 8 = 40
6 × 8 = 48
7 × 8 = 56
8 × 8 = 64
9 × 8 = 72
10 × 8 = 80
Dhara was skip jumping by 8. Times-8 table: 8, 16, 24, 32, 40, 48, 56, 64, 72, 80

Exercise 7.10 — Fun Way of Writing Tables — Sticks Method (Times-5)

Q1 Complete the times-5 table using the sticks method: 4 × 5 = ?, 5 × 5 = ?, 6 × 5 = ?, 7 × 5 = ?, 8 × 5 = ?, 9 × 5 = ?

SOLUTION

The sticks method counts intersections: N horizontal sticks × 5 vertical sticks = N × 5 dots.

4 × 5 = 20

5 × 5 = 25

6 × 5 = 30

7 × 5 = 35

8 × 5 = 40

9 × 5 = 45

4×5=20, 5×5=25, 6×5=30, 7×5=35, 8×5=40, 9×5=45

Q2 Make times-6 to times-10 tables using the sticks method shown. Write each table in your notebook.

SOLUTION

The sticks method works the same way for any table.

Times-6: 6, 12, 18, 24, 30, 36, 42, 48, 54, 60

Times-7: 7, 14, 21, 28, 35, 42, 49, 56, 63, 70

Times-8: 8, 16, 24, 32, 40, 48, 56, 64, 72, 80

Times-9: 9, 18, 27, 36, 45, 54, 63, 72, 81, 90

Times-10: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

Write each table by drawing N groups of sticks and counting the intersections (activity).

Exercise 7.11 — Seeing Patterns in Multiplication Tables (Times-5)

Q1 Look at the times-5 table. What patterns do you see? Guess the last digits of 11 × 5 and 12 × 5.

SOLUTION

Pattern: the answers always end in 5 (odd multiples) or 0 (even multiples).
11 × 5 = 55 → ends in 5
12 × 5 = 60 → ends in 0
The answers alternate ending in 5 (odd × 5) and 0 (even × 5). 11 × 5 ends in 5; 12 × 5 ends in 0.

Q2 Give 3 examples of numbers that when taken 5 times give an answer ending with (a) 0 and (b) 5.

SOLUTION

(a) Ending in 0: even numbers multiplied by 5 end in 0.
2 × 5 = 10, 4 × 5 = 20, 6 × 5 = 30
(b) Ending in 5: odd numbers multiplied by 5 end in 5.
1 × 5 = 5, 3 × 5 = 15, 5 × 5 = 25
(a) 2, 4, 6 (any even numbers). (b) 1, 3, 5 (any odd numbers).

Q3 Without finding the full answer, tell the last digit of 18 × 5, 23 × 5, 32 × 5, 50 × 5.

SOLUTION

18 is even → 18 × 5 ends in 0
23 is odd → 23 × 5 ends in 5
32 is even → 32 × 5 ends in 0
50 is even → 50 × 5 ends in 0
18 × 5 → 0; 23 × 5 → 5; 32 × 5 → 0; 50 × 5 → 0

Q4 Look at the times tables of 2, 3 and 5. Is there a relation? (e.g. 1×2=2, 1×3=3, 1×5=5; 2×2=4, 2×3=6, 2×5=10). What do you notice?

SOLUTION

For any number n: n × 2 + n × 3 = n × 5
Example n=1: 2 + 3 = 5 ✓
Example n=2: 4 + 6 = 10 ✓
Example n=3: 6 + 9 = 15 ✓
Example n=4: 8 + 12 = 20 ✓
The times-2 table and times-3 table ADD UP to the times-5 table!
n × 2 + n × 3 = n × 5 for every n. The times-2 and times-3 tables add up to the times-5 table.

Exercise 7.12 — Let us Do — Word Problems

Q1 (a) There are 5 jars with 4 cookies in each jar. How many cookies are there?

SOLUTION

5 jars × 4 cookies per jar = 5 × 4 = 20 cookies
20 cookies

Q2 (b) An idli vessel contains 6 idli plates. In each plate we can make 4 idlis. How many idlis can be cooked in one go?

SOLUTION

6 plates × 4 idlis per plate = 6 × 4 = 24 idlis
24 idlis

Q3 (c) 30 cookies are to be distributed among 5 children equally. How many cookies will each child get?

SOLUTION

30 cookies ÷ 5 children = 6 cookies each
30 ÷ 5 = 6
6 cookies each

Q4 (d) Roro starts from 0 and takes 6 equal jumps to reach 18. What is the size of Roro's jump?

SOLUTION

Total distance = 18, number of equal jumps = 6.
Jump size = 18 ÷ 6 = 3
Jump size = 3

Q5 (e) Toto does not take jumps of the same size and still reaches 18 in 6 jumps. How did Toto jump?

SOLUTION

The jumps do not all have to be equal, they just need to add up to 18 in 6 jumps.
One possibility: 1 + 2 + 3 + 4 + 5 + 3 = 18
Another: 2 + 2 + 3 + 4 + 4 + 3 = 18
Many answers are correct as long as they sum to 18 using 6 jumps.
Many answers possible, e.g. 1 + 2 + 3 + 4 + 5 + 3 = 18 (activity — share in class)

Q6 (f) Suma saves 8 every day. After how many days will she have 56?

SOLUTION

Amount saved per day = 8, target = 56.
Number of days = 56 ÷ 8 = 7 days
7 days

Q7 (g) Mary has 63 sea-shells. She gives 7 sea-shells to each of her 5 friends. How many does she have left?

SOLUTION

Sea-shells given away = 7 × 5 = 35
Sea-shells left = 63 − 35 = 28
28 sea-shells left

Q8 Solve: (a) 4 × 9

SOLUTION

4 × 9 = 36
36

Q9 Solve: (b) 32 ÷ 8

SOLUTION

32 ÷ 8 = 4
4

Q10 Solve: (c) 6 × 7

SOLUTION

6 × 7 = 42
42

Q11 Solve: (d) 45 ÷ 5

SOLUTION

45 ÷ 5 = 9
9

Exercise 7.13 — Bhim's Spokes Problem

Q1 Bhim needs to make spokes for 20 wheels of a cardboard rath. Each wheel needs 5 spokes. How many spokes will Bhim need?

SOLUTION

Method: split into two groups of 10 wheels.
10 wheels × 5 spokes = 10 × 5 = 50 spokes
Another 10 wheels × 5 spokes = 10 × 5 = 50 spokes
Total = 50 + 50 = 100 spokes
Or directly: 20 × 5 = 100
100 spokes. 20 × 5 = 100

Q2 Try these: Complete the pattern. 30 × 5 = ?, 40 × 5 = ?, 50 × 5 = ?, 60 × 5 = ?, 70 × 5 = ?, 80 × 5 = ?, 90 × 5 = ?, 100 × 5 = ?

SOLUTION

30 × 5 = 150 (three groups of 10 × 5 = 3 × 50)
40 × 5 = 200
50 × 5 = 250
60 × 5 = 300
70 × 5 = 350
80 × 5 = 400
90 × 5 = 450
100 × 5 = 500
Pattern: each step adds 50 (one more group of 10 wheels).
150, 200, 250, 300, 350, 400, 450, 500

Q3 Gopal collected 45 spokes. How many wheels can he make (each wheel needs 5 spokes)? Does he have enough for 10 wheels?

SOLUTION

Wheels = 45 ÷ 5 = 9 wheels
10 wheels would need 10 × 5 = 50 spokes; he only has 45.
So he does NOT have enough for 10 wheels.
9 wheels. He does not have enough for 10 wheels.

Q4 How many wheels can you make with 60 spokes (each wheel needs 5 spokes)?

SOLUTION

60 ÷ 5 = 12 wheels

12 wheels

Exercise 7.14 — Let us Do — Spiders and Auto Rickshaws

Q1 A spider has 8 legs. How many legs will 5 spiders, 10 spiders, 15 spiders and 23 spiders have?

SOLUTION

5 spiders: 5 × 8 = 40 legs
10 spiders: 10 × 8 = 80 legs
15 spiders: 15 × 8 = 120 legs
23 spiders: 23 × 8 = 184 legs
5 spiders → 40 legs; 10 → 80; 15 → 120; 23 → 184

Q2 A group of spiders have 32 legs. How many spiders are there in the group?

SOLUTION

Each spider has 8 legs.
Number of spiders = 32 ÷ 8 = 4
4 spiders

Q3 Here is a 3-wheeled auto rickshaw. How many wheels are there in: (a) 18 auto rickshaws? (b) 34 auto rickshaws?

SOLUTION

(a) 18 × 3 = 54 wheels
(b) 34 × 3 = 102 wheels
(a) 54 wheels (b) 102 wheels

Q4 Auto rickshaws in a garage have a total of 36 wheels. How many auto rickshaws are there in the garage?

SOLUTION

Each auto rickshaw has 3 wheels.
Number of rickshaws = 36 ÷ 3 = 12
12 auto rickshaws

Q5 There is a line of 55 ants. One ant has 6 legs. What is the total number of legs?

SOLUTION

55 ants × 6 legs each = 55 × 6 = 330 legs
330 legs

Q6 Micky, the mouse, can see 48 legs of cows in the shed. How many cows are there? (Each cow has 4 legs.)

SOLUTION

Number of cows = 48 ÷ 4 = 12

12 cows

Q7 Karry, the crow, can see 24 horns of cows in the shed. What is the total number of legs? (Each cow has 2 horns and 4 legs.)

SOLUTION

Each cow has 2 horns, so number of cows = 24 ÷ 2 = 12 cows.

Total legs = 12 × 4 = 48 legs

48 legs

Exercise 7.15 — Let Us Think — Frog Jumps of 7

Q1 A frog starts at 0 and takes jumps of 7. What is the largest number it will reach before crossing 50?

SOLUTION

Jumps: 7, 14, 21, 28, 35, 42, 49, 56, …
56 > 50, so the frog stops at 49.
49 = 7 × 7
49

Q2 A frog wants to jump backwards from 50, taking jumps of 7. What is the number after which it is not possible for the frog to make a full jump of 7?

SOLUTION

Jumping back by 7 from 50: 50, 43, 36, 29, 22, 15, 8, 1.
From 1, the next jump of 7 would reach 1 − 7 = −6, which is below 0.
So the frog cannot make a full jump of 7 once it reaches 1.
The frog cannot make another jump of 7 after reaching 1 (since 1 − 7 < 0).

Q3 What numbers should the frog start from to reach 0, taking jumps of 7 each time? What do you observe?

SOLUTION

The frog reaches 0 only if it starts from a multiple of 7.
Multiples of 7 up to 50: 7, 14, 21, 28, 35, 42, 49.
Observation: these are the numbers in the times-7 table.
7, 14, 21, 28, 35, 42, 49. Observation: they are all multiples of 7.

Exercise 7.16 — Puri Beach — Larger Multiplication

Q1 One wall-hanging costs 42. How much do two wall-hangings cost?

SOLUTION

Cost = 42 + 42 = 2 × 42 = 84

84

Q2 One rabdi cup costs 75. Preeti buys 5 cups. She pays with 100 notes. What is the total cost? How many 100 notes should she give? How much change will she get?

SOLUTION

Total cost = 5 × 75 = 375

100 notes needed: 375 ÷ 100 = 3 full notes = 300, still short by 75, so she needs 4 notes.

She gives 4 × 100 = 400.

Change = 400 − 375 = 25

Total cost 375. She gives 4 notes of 100. Shopkeeper returns 25.

Exercise 7.17 — Sea-Shells — Repeated Subtraction / Division

Q1 Dhruv collected 112 sea-shells. Each necklace needs 28 shells. He makes necklaces for 3 friends — are 112 shells enough? How many shells are left after the 3rd necklace? How many necklaces can he make in total?

SOLUTION

After 1st necklace: 112 − 28 = 84 shells left.
After 2nd necklace: 84 − 28 = 56 shells left.
After 3rd necklace: 56 − 28 = 28 shells left.
Yes, 112 shells are enough for 3 necklaces (28 left over).
He can make a 4th necklace too: 28 − 28 = 0.
Total necklaces = 112 ÷ 28 = 4
Yes, enough. 28 shells left after 3rd necklace. Dhruv can make 4 necklaces in total.

Q2 Try these — 1: Kannu makes a necklace of 17 sea-shells. How many such necklaces can be made using 100 sea-shells?

SOLUTION

100 ÷ 17 = 5 with remainder 15 (5 × 17 = 85, 100 − 85 = 15).
So 5 complete necklaces can be made (15 shells left over).
5 necklaces (15 shells left over)

Q3 Try these — 2: Dhruv finds 127 shiny pebbles. He distributes them equally to 3 friends. How many will each get?

SOLUTION

127 ÷ 3 = 42 with remainder 1.
Each friend gets 42 pebbles, and 1 pebble is left over.
42 pebbles each (1 left over)

Q4 Try these — 3: Preeti has a 500 note. How many notes will she get if she exchanges it for (a) all 50 notes? (b) all 20 notes? (c) all 10 notes?

SOLUTION

(a) 500 ÷ 50 = 10 notes
(b) 500 ÷ 20 = 25 notes
(c) 500 ÷ 10 = 50 notes
(a) 10 notes of 50 (b) 25 notes of 20 (c) 50 notes of 10

Exercise 7.18 — Let us Explore — Number Card Envelopes

Q1 Ten number cards 1–10 are placed in 5 envelopes (2 cards each). The product written on each envelope is: 7, 18, 32, 45, 20. The fifth envelope is given: it has cards 5 and 9 (5 × 9 = 45). Identify the cards in the other four envelopes.

SOLUTION

Cards used in envelope 5: 5 and 9. Remaining cards: 1, 2, 3, 4, 6, 7, 8, 10.
Product 7: which two remaining cards multiply to 7? 1 × 7 = 7. Cards: 1 and 7.
Product 18: remaining cards (2, 3, 4, 6, 8, 10). 3 × 6 = 18. Cards: 3 and 6.
Product 32: remaining cards (2, 4, 8, 10). 4 × 8 = 32. Cards: 4 and 8.
Product 20: remaining cards (2, 10). 2 × 10 = 20. Cards: 2 and 10.
All 10 cards are used exactly once.
Envelope with 7: {1, 7}; with 18: {3, 6}; with 32: {4, 8}; with 20: {2, 10}; with 45: {5, 9}