Chapter 13: The Transport Museum

CONTENTS 11 exercises · 46 questions

13.1	Mystery Matrix	2 Q
13.2	Times-10	4 Q
13.3	Constructing Tables — Times-15	4 Q
13.4	Making Tables by Splitting into Equal Groups	2 Q
13.5	Multiples of 10	7 Q
13.6	A Day at the Transport Museum	4 Q
13.7	Let Us Solve — Multiplication and Division (Page 191)	1 Q
13.8	Multiples of 100	9 Q
13.9	Dividing by 10 and 100	4 Q
13.10	Let Us Solve — Story Problems	6 Q
13.11	Chinnu's Coins	3 Q

Exercise 13.1 — Mystery Matrix

Q1 Fill the yellow boxes with 1-digit numbers (multiplicands and multipliers) such that you get the products given in the white boxes (32 and 42). Then fill the remaining white boxes with appropriate products.

SOLUTION

The grid contains two 2×2 Mystery Matrix puzzles. Puzzle 1 (given diagonal products 32 and 42): choose row factor 4 and 6, column factor 8 and 7. Then: 4×8=32 ✓, 6×7=42 ✓, and the blank boxes fill as 4×7=28 and 6×8=48. Puzzle 2 (given diagonal products 45 and 21): choose row factor 5 and 3, column factor 9 and 7. Then: 5×9=45 ✓, 3×7=21 ✓, and the blank boxes fill as 5×7=35 and 3×9=27. Multiple valid factor choices exist; any 1-digit pair whose product matches the given value works.

Q2 The product of the numbers in each row is given in the orange boxes. The product of the numbers in each column is given in the blue boxes. Identify appropriate numbers to fill the blank boxes. (Orange: 63, 48, 56, 42, 54; Blue: 50, 60, 35)

SOLUTION

The figure shows two separate product grids. Grid A: row products 56 and 54 (orange), column products 63 and 48 (blue). Fill cells with: Row 1 → 7, 8 (7×8=56); Row 2 → 9, 6 (9×6=54). Check columns: 7×9=63 ✓ and 8×6=48 ✓. Grid B: row products 42 and 50 (orange), column products

60 and 35 (blue). Fill cells with: Row 1 → 6, 7 (6×7=42); Row 2 → 10, 5 (10×5=50). Check columns: 6×10=60 ✓ and 7×5=35 ✓. (Grid B needs the number 10 in one cell — no all-single-digit solution exists for these particular row and column products.)

Exercise 13.2 — Times-10

Q1 Match each problem with the appropriate pictorial representation and write the answer. 2 × 10 = ___ Tens = ___

SOLUTION

2 × 10 means 2 groups of 10.
2 × 10 = 2 Tens = 20

Q2 5 × 10 = ___ Tens = ___

SOLUTION

5 × 10 means 5 groups of 10.
5 × 10 = 5 Tens = 50

Q3 8 × 10 = ___ Tens = ___

SOLUTION

8 × 10 means 8 groups of 10.
8 × 10 = 8 Tens = 80

Q4 What is 10 × 10 = ___ Tens = ___?

SOLUTION

10 × 10 means 10 groups of 10.
10 × 10 = 10 Tens = 100 (1 Hundred)

Exercise 13.3 — Constructing Tables — Times-15

Q1 How many pebbles are there in a 5 × 15 arrangement? Find 5 × 15 by splitting: 5 × 15 = 5 × 10 and 5 × 5 = ___ + ___ = ___

SOLUTION

Split 15 into 10 and 5.
5 × 10 = 50
5 × 5 = 25
5 × 15 = 50 + 25 = 75

Q2 Construct the times-15 table: 1 × 15 = ___, 2 × 15 = ___, 3 × 15 = ___, 4 × 15 = ___, 5 × 15 = ___, 6 × 15 = ___, 7 × 15 = ___, 8 × 15 = ___, 9 × 15 = ___, 10 × 15 = ___

SOLUTION

1 × 15 = 15
2 × 15 = 30
3 × 15 = 45
4 × 15 = 60
5 × 15 = 75
6 × 15 = 90
7 × 15 = 105
8 × 15 = 120
9 × 15 = 135
10 × 15 = 150

Q3 Complete the Times-5 and Times-15 comparison table for missing values: 4 × 5 = ___, 4 × 15 = ___, 5 × 5 = ___, 5 × 15 = ___, 6 × 5 = ___, 6 × 15 = ___, 7 × 5 = ___, 7 × 15 = ___, 8 × 5 = ___, 8 × 15 = ___, 9 × 5 = ___, 9 × 15 = ___, 10 × 5 = ___, 10 × 15 = ___

SOLUTION

4 × 5 = 20, 4 × 15 = 60
5 × 5 = 25, 5 × 15 = 75
6 × 5 = 30, 6 × 15 = 90
7 × 5 = 35, 7 × 15 = 105
8 × 5 = 40, 8 × 15 = 120
9 × 5 = 45, 9 × 15 = 135
10 × 5 = 50, 10 × 15 = 150

Pattern: each times-15 value is exactly 3 times the corresponding times-5 value (since 15 = 3 × 5).

Q4 What times-table is formed by the differences: 15 – 5 = 10, 30 – 10 = 20, 45 – 15 = 30, … ?

SOLUTION

The differences between corresponding times-15 and times-5 entries give: 10, 20, 30, 40, …
This is the times-10 table.
It works because: $n \times 15 - n \times 5 = n \times (15 - 5) = n \times 10$.

Exercise 13.4 — Making Tables by Splitting into Equal Groups

Q1 Tara splits 3 × 14 into two equal groups to find the answer. 3 × 14 = 3 × 7 and 3 × 7 = 21 + 21 = double of 21 = ___

SOLUTION

Split 14 into two equal groups of 7.
3 × 7 = 21
3 × 14 = 21 + 21 = double of 21 = 42

Q2 Similarly find 6 × 14 by splitting: 6 × 14 = double of 6 × 7 = ___

SOLUTION

Split 14 into two equal groups of 7.
6 × 7 = 42
6 × 14 = 42 + 42 = double of 42 = 84

Exercise 13.5 — Multiples of 10

Q1 Find the answers: a) 15 × 10 = ___ Tens = ___ b) 16 × 10 = ___ Tens = ___ c) 19 × 10 = ___ Tens = ___ d) 20 × 10 = ___ Tens = ___

SOLUTION

a) 15 × 10 = 15 Tens = 150
b) 16 × 10 = 16 Tens = 160
c) 19 × 10 = 19 Tens = 190
d) 20 × 10 = 20 Tens = 200

Q2 10 × 10 = ___. 2 times (double of) 10 × 10 = ___

SOLUTION

10 × 10 = 100
Double of 100 = 2 × 100 = 200

Q3 Think and answer: 30 × 10 = ___, 40 × 10 = ___, 50 × 10 = ___, 60 × 10 = ___, 70 × 10 = ___, 80 × 10 = ___

SOLUTION

30 × 10 = 300
40 × 10 = 400
50 × 10 = 500
60 × 10 = 600
70 × 10 = 700
80 × 10 = 800

Q4 Find the number of people who can travel in 26 tempo travellers (each seats 10). 26 × 10 = ___

SOLUTION

26 × 10 = 26 Tens
= 20 Tens + 6 Tens
= 200 + 60
= 260 travellers

Q5 Answer the following: a) 21 × 10 = ___ b) 42 × 10 = ___ c) 65 × 10 = ___ d) 38 × 10 = ___ e) 53 × 10 = ___ f) 87 × 10 = ___

SOLUTION

a) 21 × 10 = 210
b) 42 × 10 = 420
c) 65 × 10 = 650
d) 38 × 10 = 380
e) 53 × 10 = 530
f) 87 × 10 = 870

Q6 A small bus can seat 20 people. How many people can be seated in 12 buses? Find 12 × 20.

SOLUTION

Method 1: 12 × 20 = 10 × 20 + 2 × 20 = 200 + 40 = 240
Method 2: 12 × 20 = 12 × 10 + 12 × 10 = 120 + 120 = 240
Method 3: 12 × 20 = 12 × 2 Tens = 24 Tens = 240
240 people can be seated in 12 buses.

Q7 Solve: 24 × 40 = ___, 50 × 60 = ___, 13 × 30 = ___, 43 × 60 = ___, 70 × 80 = ___

SOLUTION

24 × 40: 24 × 4 Tens = 96 Tens = 960
50 × 60: 50 × 6 Tens = 300 Tens = 3000
13 × 30: 13 × 3 Tens = 39 Tens = 390
43 × 60: 43 × 6 Tens = 258 Tens = 2580
70 × 80: 70 × 8 Tens = 560 Tens = 5600

Exercise 13.6 — A Day at the Transport Museum

Q1 Each coach of the toy train can seat 14 children. The toy train has 15 coaches. How many children can be seated in the toy train? Find 15 × 14.

SOLUTION

Split 15 into 10 and 5; split 14 into 10 and 4.
10 × 10 = 100
10 × 4 = 40
5 × 10 = 50
5 × 4 = 20
15 × 14 = 100 + 40 + 50 + 20 = 210
210 children can be seated in the toy train.

Q2 Raahi wonders how many coaches will be needed for 324 children from her school. Each coach seats 14. Find 324 ÷ 14.

SOLUTION

Step-by-step subtraction (chunking method):
324 ÷ 14
10 × 14 = 140; 324 − 140 = 184 (10 coaches)
10 × 14 = 140; 184 − 140 = 44 (10 more coaches, total 20)
1 × 14 = 14; 44 − 14 = 30 (1 more coach, total 21)
2 × 14 = 28; 30 − 28 = 2 (2 more coaches, total 23)
Total coaches used = 10 + 10 + 1 + 2 = 23, remainder = 2
Remainder = 2 children still need a seat, so 1 extra coach is required.
Total coaches needed = 24.

Q3 In a snake-boat race, 960 participants volunteered. Each boat is pedalled by 64 people. How many boats will be needed? Find 960 ÷ 64.

SOLUTION

Step-by-step subtraction (chunking method):
10 × 64 = 640; 960 − 640 = 320 (10 boats)
5 × 64 = 320; 320 − 320 = 0 (5 more boats, total 15)
Remainder = 0
Total boats needed = 15.

Q4 Amala reads: 'During Vande Bharat Mission, in the first week 64 flights carried 152 people each.' How many people travelled in the first week? Find 64 × 152.

SOLUTION

Split 64 into 60 and 4; split 152 into 100, 50, and 2.

60 × 100 = 6000

60 × 50 = 3000

60 × 2 = 120

4 × 100 = 400

4 × 50 = 200

4 × 2 = 8

64 × 152 = 6000 + 3000 + 120 + 400 + 200 + 8 = 9728

9728 people travelled in the first week.

Exercise 13.7 — Let Us Solve — Multiplication and Division (Page 191)

Q1 Solve: a) 25 × 34 b) 16 × 43 c) 68 × 12 d) 39 × 13 e) 125 ÷ 15 (also find remainder) f) 94 ÷ 11 g) 440 ÷ 22 h) 508 ÷ 18

SOLUTION

a) 25 × 34: 20 × 34 + 5 × 34 = 680 + 170 = 850
b) 16 × 43: 10 × 43 + 6 × 43 = 430 + 258 = 688
c) 68 × 12: 60 × 12 + 8 × 12 = 720 + 96 = 816
d) 39 × 13: 40 × 13 − 1 × 13 = 520 − 13 = 507
e) 125 ÷ 15: 8 × 15 = 120; 125 − 120 = 5; Quotient = 8, Remainder = 5
f) 94 ÷ 11: 8 × 11 = 88; 94 − 88 = 6; Quotient = 8, Remainder = 6
g) 440 ÷ 22: 20 × 22 = 440; Quotient = 20, Remainder = 0
h) 508 ÷ 18: 28 × 18 = 504; 508 − 504 = 4; Quotient = 28, Remainder = 4

Exercise 13.8 — Multiples of 100

Q1 Find: 3 × 100 = ___ Hundreds = ___, 5 × 100 = ___, 8 × 100 = ___

SOLUTION

3 × 100 = 3 Hundreds = 300
5 × 100 = 5 Hundreds = 500
8 × 100 = 8 Hundreds = 800

Q2 What happens when we put 10 Hundreds together? 10 × 100 = ___, 11 × 100 = ___, 12 × 100 = ___, 15 × 100 = ___, 20 × 100 = ___, 27 × 100 = ___, 70 × 100 = ___

SOLUTION

10 × 100 = 10 Hundreds = 1000
11 × 100 = 10 Hundreds + 1 Hundred = 1000 + 100 = 1100
12 × 100 = 1200
15 × 100 = 1500
20 × 100 = 20 Hundreds = 2000
27 × 100 = 2700
70 × 100 = 7000

Q3 Answer: 30 × 100 = ___, 40 × 100 = ___, 50 × 100 = ___, 24 × 100 = ___, 53 × 100 = ___, 19 × 100 = ___

SOLUTION

30 × 100 = 3000
40 × 100 = 4000
50 × 100 = 5000
24 × 100 = 2400
53 × 100 = 5300
19 × 100 = 1900

Q4 We know 80 × 100 = 8000. Find: 80 × 50 = ___, 40 × 50 = ___

SOLUTION

80 × 50 = 80 × 5 Tens = 400 Tens = 4000
Alternatively: 80 × 50 = half of 80 × 100 = half of 8000 = 4000
40 × 50 = 40 × 5 Tens = 200 Tens = 2000
Alternatively: 40 × 50 = half of 80 × 50 = half of 4000 = 2000

Q5 Find: 11 × 200 = ___ (in three ways)

SOLUTION

Way 1: 11 × 200 = 10 × 200 + 1 × 200 = 2000 + 200 = 2200
Way 2: 11 × 200 = 11 × 100 + 11 × 100 = 1100 + 1100 = 2200
Way 3: 11 × 200 = 11 × 2 Hundreds = 22 Hundreds = 2200

Q6 Share what you notice: 11 × 100 = ___, 22 × 100 = ___, 11 × 200 = ___, 22 × 200 = ___

SOLUTION

11 × 100 = 1100
22 × 100 = 2200
11 × 200 = 2200
22 × 200 = 4400
Notice: doubling the number of groups OR doubling the group size each doubles the product.
Also: 22 × 100 = 11 × 200 = 2200 (same product, different factor pairs).

Q7 Answer: 18 × 100 = ___, 15 × 200 = ___, 23 × 200 = ___, 5 × 500 = ___, 14 × 300 = ___, 7 × 800 = ___

SOLUTION

18 × 100 = 1800
15 × 200 = 15 × 2 Hundreds = 30 Hundreds = 3000
23 × 200 = 23 × 2 Hundreds = 46 Hundreds = 4600
5 × 500 = 5 × 5 Hundreds = 25 Hundreds = 2500
14 × 300 = 14 × 3 Hundreds = 42 Hundreds = 4200
7 × 800 = 7 × 8 Hundreds = 56 Hundreds = 5600

Q8 Set A, B, C — Find answers and examine patterns. Set A: 14×100=___, 7×500=___, 30×100=___, 15×100=___. Set B: 14×10=___, 14×50=___, 7×50=___, 7×25=___, 30×10=___, 30×20=___, 15×10=___, 15×20=___. Set C: 14×1=___, 14×5=___, 7×5=___, 7×10=___, 30×1=___, 30×2=___, 15×1=___, 15×2=___.

SOLUTION

Set A: 14×100=1400, 7×500=3500, 30×100=3000, 15×100=1500
Set B: 14×10=140, 14×50=700, 7×50=350, 7×25=175, 30×10=300, 30×20=600, 15×10=150, 15×20=300
Set C: 14×1=14, 14×5=70, 7×5=35, 7×10=70, 30×1=30, 30×2=60, 15×1=15, 15×2=30
Pattern: moving from Set C to B to A multiplies the second factor by 10 each time, so the product also multiplies by 10 each time.
Example: 14×1=14 → 14×10=140 → 14×100=1400.

Q9 Answer: 1) 44 × 10 = ___, 22 × 20 = ___ 2) 16 × 100 = ___, 4 × 400 = ___

SOLUTION

1) 44 × 10 = 440

22 × 20 = 22 × 2 Tens = 44 Tens = 440

Both give 440 — halving the group size and doubling the number of groups gives the same product.

2) 16 × 100 = 1600

4 × 400 = 4 × 4 Hundreds = 16 Hundreds = 1600

Both give 1600.

Exercise 13.9 — Dividing by 10 and 100

Q1 A farmer packs rice in sacks of 10 kg each. a) If he has 60 kg of rice, how many sacks? b) If he has 600 kg of rice, how many sacks of 10 kg? c) If a sack weighs 100 kg, how many sacks for 600 kg? 60 ÷ 10 = ___, 600 ÷ 10 = ___, 600 ÷ 100 = ___

SOLUTION

a) 60 ÷ 10 = 6 sacks
b) 600 ÷ 10 = 60 sacks
c) 600 ÷ 100 = 6 sacks

Q2 Find: 40 ÷ 10 = ___, 400 ÷ 10 = ___, 400 ÷ 100 = ___, 4 ÷ 2 = ___, 400 ÷ 2 = ___, 40 ÷ 20 = ___, 400 ÷ 20 = ___, 400 ÷ 200 = ___

SOLUTION

40 ÷ 10 = 4
400 ÷ 10 = 40
400 ÷ 100 = 4
4 ÷ 2 = 2
400 ÷ 2 = 200
40 ÷ 20 = 2
400 ÷ 20 = 20
400 ÷ 200 = 2

Q3 Manku the monkey sees 870 bananas. Each bunch has 10. How many bunches are there?

SOLUTION

870 ÷ 10 = 87
There are 87 bunches in the market.

Q4 Rukhma Bi wants to distribute 1000 equally among her 10 grandchildren on Eid. How much will each get?

SOLUTION

1000 ÷ 10 = 100
Each grandchild will get 100.

Exercise 13.10 — Let Us Solve — Story Problems

Q1 The Punjab Mail had 6 coaches on its first journey: 3 carrying 96 passengers and 3 for goods. a) How many people travelled in each coach? b) Now it has 24 coaches, each carrying 72 passengers. How many people can travel?

SOLUTION

a) 96 passengers in 3 coaches.
96 ÷ 3 = 32 passengers per coach.
b) 24 coaches × 72 passengers each.
24 × 72 = 20 × 72 + 4 × 72 = 1440 + 288 = 1728
1728 people can travel on the train today.

Q2 Amala and 35 classmates plus 6 teachers are going on a school trip. They use a double-decker hop-on-hop-off bus (15 lower seats + 10 upper seats, 2 per seat). a) How many seats will they need? Are there enough seats? b) Find the total cost of tickets for all children at 359 each. c) What is the cost of tickets for all teachers at 899 each?

SOLUTION

Total people: 36 children (Amala + 35) + 6 teachers = 42 people.
a) Each seat holds 2 people, so seats needed = 42 ÷ 2 = 21 seats.
Total bus seats = 15 + 10 = 25 seats (capacity 50 people).
25 seats available ≥ 21 needed, so yes, there are enough seats.
b) 36 children × 359 = 30 × 359 + 6 × 359 = 10770 + 2154 = 12924
Total cost for children = 12924.
c) 6 teachers × 899 = 6 × 900 − 6 × 1 = 5400 − 6 = 5394
Total cost for teachers = 5394.

Q3 Kedar works in a brick kiln. a) The kiln makes 125 bricks a day. How many bricks can be made in a month (30 days)? b) Each brick is sold for 9. How much money can they earn in a month?

SOLUTION

a) 125 × 30 = 125 × 3 Tens = 375 Tens = 3750 bricks in a month.
b) 3750 × 9 = 3750 × 10 − 3750 = 37500 − 3750 = 33750
They can earn 33750 in a month.

Q4 Eight people go on a trip to Chilika lake. A bus ticket from Puri to Satapada costs 60. A two-hour boat ride for 8 people costs 1200. How much money does each person need to spend?

SOLUTION

Bus cost for 8 people: 8 × 60 = 480
Boat cost for 8 people: 1200
Total cost for 8 people: 480 + 1200 = 1680
Cost per person: 1680 ÷ 8 = 210
Each person needs to spend 210.

Q5 Find the multiplication and division sentences in the grid. Some are given: 250 × 4 = 1000, 50 × 20 = 1000, 525 ÷ 5 = 105. Find more.

SOLUTION

The grid contains these multiplication and division sentences (reading across rows or down columns with three consecutive cells): Given (already shaded): 250×4=1000 (column 5, rows 2–4); 50×20=1000 (row 4, columns 3–5); 525÷5=105 (row 8, columns 3–5). Additional sentences found: 52×20=1040 (column 2, rows 1–3); 30×15=450 (column 3, rows 1–3); 55×101=5555 (column 8, rows 1–3); 5×22=110 (column 1, rows 2–4); 4×26=104 (row 3, columns 5–7); 50×19=950 (column 3, rows 4–6); 1000×6=6000 (column 5, rows 4–6); 99×7=693 (column 8, rows 4–6); 104×6=624 (column 2, rows 5–7); 6×22=132 (row 5, columns 5–7); 6000÷30=200 (row 6, columns 5–7); 200×16=3200 (column 7, rows 6–8). Total: 12 additional sentences beyond the 3 given = 15 sentences in all.

Q6 Solve: a) 35×76 b) 267×38 c) 498×9 d) 89×42 e) 55×23 f) 345×17 g) 66×22 h) 704×11 i) 319×26 j) 459÷3 k) 774÷18 l) 864÷26 m) 304÷12 n) 670÷9 o) 584÷25 p) 900÷15 q) 658÷32 r) 974÷9

SOLUTION

a) 35 × 76: 30 × 76 + 5 × 76 = 2280 + 380 = 2660
b) 267 × 38: 200 × 38 + 60 × 38 + 7 × 38 = 7600 + 2280 + 266 = 10146
c) 498 × 9: 500 × 9 − 2 × 9 = 4500 − 18 = 4482
d) 89 × 42: 90 × 42 − 1 × 42 = 3780 − 42 = 3738
e) 55 × 23: 50 × 23 + 5 × 23 = 1150 + 115 = 1265
f) 345 × 17: 300 × 17 + 40 × 17 + 5 × 17 = 5100 + 680 + 85 = 5865
g) 66 × 22: 60 × 22 + 6 × 22 = 1320 + 132 = 1452
h) 704 × 11: 700 × 11 + 4 × 11 = 7700 + 44 = 7744
i) 319 × 26: 300 × 26 + 19 × 26 = 7800 + 494 = 8294
j) 459 ÷ 3: 153, remainder 0
k) 774 ÷ 18: 43, remainder 0
l) 864 ÷ 26: 33, remainder 6

m) 304 ÷ 12: 25, remainder 4
n) 670 ÷ 9: 74, remainder 4
o) 584 ÷ 25: 23, remainder 9
p) 900 ÷ 15: 60, remainder 0
q) 658 ÷ 32: 20, remainder 18
r) 974 ÷ 9: 108, remainder 2

Exercise 13.11 — Chinnu's Coins

Q1 Five friends each buy a 750 ticket using different denominations. Bujji: 200 notes. Munna: 50 notes. Balu: 20 notes. Chinnu: 5 coins. Sansu: 2 coins. a) How many notes/coins does each child need? b) Which child will receive no change? c) How long will the cashier take to count Chinnu's coins?

SOLUTION

a) Bujji (200 notes): 750 ÷ 200 = 3.75 → needs 4 notes (pays 800, gets 50 change).
Munna (50 notes): 750 ÷ 50 = 15 → needs exactly 15 notes, no change.
Balu (20 notes): 750 ÷ 20 = 37.5 → needs 38 notes (pays 760, gets 10 change).
Chinnu (5 coins): 750 ÷ 5 = 150 → needs exactly 150 coins, no change.
Sansu (2 coins): 750 ÷ 2 = 375 → needs exactly 375 coins, no change.

b) Munna (15 × 50 = 750), Chinnu (150 × 5 = 750), and Sansu (375 × 2 = 750) receive no change.

c) If the cashier counts 1 coin per second, 150 coins take 150 seconds = 2 minutes 30 seconds. If 2 coins per second, it takes about 75 seconds. Discuss in class what a reasonable counting speed is!

Q2 Observe: 12×13=156, 11×14=154, 13×13=169, 11×12=132. Do you see a pattern in the two numbers and their product? Find 5 more examples where this pattern holds.

SOLUTION

Pattern (look at the coloured/tens digits): in each case, both numbers have the same tens digit (1×__ and 1×_).

The product = (tens digit)×(tens digit)×100 + (tens digit)×(sum of ones digits)×10 + (ones digits multiplied).

Simpler observation: all four multiplications involve two numbers whose tens digits are both 1 (i.e., numbers 11–19).

Five more examples: 12×14=168, 13×14=182, 11×15=165, 12×15=180, 11×16=176.

Verify: 12×14=168 ✓; 13×14=182 ✓; 11×15=165 ✓; 12×15=180 ✓; 11×16=176 ✓.

Q3 Assume each vehicle travels at full capacity. Match: 75 Cycles, 52 Autos, 103 Cars, 20 Minibus, 30 Aeroplanes, 15 Train sleeper coaches with totals: 75, 156, 400, 412, 864, 4560.

SOLUTION

Match by computing full capacity from the vehicle images: 75 Cycles (1 seat each) → 75×1 = 75. 52 Autos (3 passengers each) → 52×3 = 156. 103 Cars (4 seats each) → 103×4 = 412. 20 Minibus (20 seats each, visible in image) → 20×20 = 400. 30 Aeroplanes (152 seats each, consistent with the Vande Bharat problem) → 30×152 = 4560. 15 Train sleeper coaches → 864 (by elimination; the coach image shows berths labelled S1–S72 indicating 72 berths per coach, but the matching total 864 is assigned by elimination from the given list). Matches: Cycles↔75, Autos↔156, Cars↔412, Minibus↔400, Aeroplanes↔4560, Train sleeper coaches↔864.