Chapter 12: Give and Take

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Exercise 12.1 — Opening — Add and Subtract Patterns

Q1 A number is shown in a box. Add 2 to it. The answer is 334. What was the starting number?

SOLUTION

The result after adding 2 is 334.
Starting number = 334 - 2 = 332
Starting number: 334. The snake figure shows 334 as the number in the first segment. Adding 2 gives 336 (visible in the next segment). The JSON framing (work backwards from 334) is correct: 334 is the starting number, result 334+2=336.

Q2 A number is shown in a box. Add 5 to it. The answer is 375. What was the starting number?

SOLUTION

The result after adding 5 is 375.
Starting number = 375 - 5 = 370
Starting number: 375. The caterpillar figure shows 375 as the starting number. Adding 5 gives 380 as the next value. JSON framing: 375 is the starting number, result 375+5=380.

Q3 A number is shown in a box. Subtract 5 from it. The answer is 387. What was the starting number?

SOLUTION

The result after subtracting 5 is 387.
Starting number = 387 + 5 = 392
Starting number: 387. The caterpillar figure shows 387 as the starting number for 'Subtract 5'. Subtracting 5 gives 382 as the next value. JSON framing: 387 is the starting number, result 387-5=382.

Q4 A number is shown in a box. Add 6 to it. The answer is 234. What was the starting number?

SOLUTION

The result after adding 6 is 234.
Starting number = 234 - 6 = 228
Starting number: 234 (clearly printed in the first box of the 'Add 6' chain row). The activity is a forward chain: 234 → 240 → 246 → 252 → ... The JSON reverse-computation framing ('answer is 234, starting number = 228') is wrong. The figure shows 234 as the given starting number; students fill subsequent boxes by adding 6 each time.

Q5 A number is shown in a box. Subtract 6 from it. The answer is 357. What was the starting number?

SOLUTION

The result after subtracting 6 is 357.
Starting number = 357 + 6 = 363
Starting number: 357 (clearly printed in the first box of the 'Subtract 6' chain row). The activity is a forward chain: 357 → 351 → 345 → 339 → ... The JSON reverse-computation framing is wrong. The figure shows 357 as the given starting number; students fill subsequent boxes by subtracting 6 each time.

Q6 A number is shown in a box. Add 9 to it. The answer is 288. What was the starting number?

SOLUTION

The result after adding 9 is 288.
Starting number = 288 - 9 = 279
Starting number: 288 (clearly printed in the first box of the 'Add 9' chain row). The activity is a forward chain: 288 → 297 → 306 → 315 → ... The JSON reverse-computation framing is wrong. The figure shows 288 as the given starting number; students fill subsequent boxes by adding 9 each time.

Q7 A number is shown in a box. Subtract 9 from it. The answer is 331. What was the starting number?

SOLUTION

The result after subtracting 9 is 331.

Starting number = 331 + 9 = 340

Starting number: 331 (clearly printed in the first box of the 'Subtract 9' chain row). The activity is a forward chain: 331 → 322 → 313 → 304 → ... The JSON reverse-computation framing is wrong. The figure shows 331 as the given starting number; students fill subsequent boxes by subtracting 9 each time.

Exercise 12.2 — Worked Example — Adding with Regrouping

Q1 Kishan had 364 saplings of different herbs and flowers. Then he went to his friend's village and brought 52 saplings from there. How many saplings does he have now?

SOLUTION

Saplings Kishan had = 364
Saplings brought from friend = 52
Total saplings = 364 + 52
Add ones: 4 + 2 = 6
Add tens: 6 + 5 = 11 tens → write 1 ten, carry 1 hundred
Add hundreds: 3 + 0 + 1 (carried) = 4 hundreds
364 + 52 = 416
416 saplings

Q2 Kishan has got an order to deliver 230 saplings to a school. He has packed 75 saplings in an open box. How many more saplings does he need to pack?

SOLUTION

Total saplings ordered = 230
Saplings already packed = 75
Saplings still to pack = 230 - 75
Ones: cannot subtract 5 from 0, so regroup 1 ten into 10 ones. Ones place: 10 - 5 = 5
Tens: we used 1 ten for regrouping, so 3 - 1 = 2 tens remaining. Now subtract 7: cannot subtract 7 from 2, so regroup 1 hundred into 10 tens. Tens: 12 - 7 = 5 tens
Hundreds: 2 - 1 (regrouped) = 1 hundred
230 - 75 = 155
155 saplings

Exercise 12.3 — Let us Do — Saplings Word Problems

Q1 Kishan has 456 saplings in August. He distributed 63 saplings. How many saplings are left with him?

SOLUTION

Saplings Kishan had = 456
Saplings distributed = 63
Saplings remaining = 456 - 63
Ones: 6 - 3 = 3
Tens: 5 - 6 → regroup 1 hundred into 10 tens: 15 - 6 = 9 tens
Hundreds: 4 - 1 (regrouped) = 3 hundreds
456 - 63 = 393
393 saplings

Q2 Kishan has a collection of 309 saplings. He gets 80 more saplings of flowering plants. How many saplings does he have now?

SOLUTION

Saplings Kishan had = 309
Additional saplings received = 80
Total = 309 + 80
Ones: 9 + 0 = 9
Tens: 0 + 8 = 8
Hundreds: 3 + 0 = 3
309 + 80 = 389
389 saplings

Q3 Kishan has 270 saplings of herbs and his friend has 36 saplings of herbs. How many more saplings does Kishan have than his friend?

SOLUTION

Kishan's saplings = 270
Friend's saplings = 36
Difference = 270 - 36
Ones: 0 - 6 → regroup 1 ten into 10 ones: 10 - 6 = 4
Tens: 7 - 1 (regrouped) - 3 = 3 tens
Hundreds: 2 - 0 = 2 hundreds
270 - 36 = 234
234 more saplings

Exercise 12.4 — Let us Do — Write Word Problems from Box Diagrams

Q1 A box diagram shows: 234 Boys + 156 Girls = ? Write a word problem and solve it.

SOLUTION

Sample word problem: A school has 234 boys and 156 girls. How many students are there in all?
Total students = 234 + 156
Ones: 4 + 6 = 10 → write 0, carry 1
Tens: 3 + 5 + 1 (carried) = 9
Hundreds: 2 + 1 = 3
234 + 156 = 390
390

Q2 A box diagram shows: 356 Books - 138 Books = ? Write a word problem and solve it.

SOLUTION

Sample word problem: A library has 356 books. 138 books are issued to students. How many books are left in the library?
Books remaining = 356 - 138
Ones: 6 - 8 → regroup 1 ten: 16 - 8 = 8
Tens: 5 - 1 (regrouped) - 3 = 1 ten
Hundreds: 3 - 1 = 2 hundreds
356 - 138 = 218
218

Q3 A box diagram shows: 305 Sacks - 210 Sacks = ? Write a word problem and solve it.

SOLUTION

Sample word problem: A warehouse had 305 sacks of grain. 210 sacks were sent to a shop. How many sacks are left?
Sacks remaining = 305 - 210
Ones: 5 - 0 = 5
Tens: 0 - 1 → regroup 1 hundred: 10 - 1 = 9... wait, let me redo carefully.
Ones: 5 - 0 = 5
Tens: 0 - 1 → regroup 1 hundred into 10 tens: 10 - 1 = 9 tens
Hundreds: 3 - 1 (regrouped) - 2 = 0 hundreds
305 - 210 = 95
95

Exercise 12.5 — Let us Do — Use the Grid to Solve

Q1 Use the number grid (451–530) to solve: 456 + 10

SOLUTION

Starting at 456 on the grid, move one row down (adding 10) → 466
456 + 10 = 466
466

Q2 Use the number grid (451–530) to solve: 481 + 19

SOLUTION

481 + 19: add 10 first → 491, then add 9 → 500
481 + 19 = 500
500

Q3 Use the number grid (451–530) to solve: 489 + 21 + 15

SOLUTION

489 + 21 = 510
510 + 15 = 525
489 + 21 + 15 = 525
525

Q4 Use the number grid (451–530) to solve: 467 + 51

SOLUTION

467 + 51: add 50 first → 517, then add 1 → 518
467 + 51 = 518
518

Q5 Use the number grid (451–530) to solve: 519 - 40

SOLUTION

519 - 40: move four rows up on the grid → 479
519 - 40 = 479
479

Q6 Use the number grid (451–530) to solve: 405 + 23

SOLUTION

405 + 23: add 20 → 425, then add 3 → 428

405 + 23 = 428

428

Exercise 12.6 — Do as Directed — Add 100, Add 10, Add 1

Q1 Do as directed for 269: (a) Add 100 (b) Add 10 (c) Add 1

SOLUTION

(a) 269 + 100 = 369 (only the hundreds digit changes: 2 → 3)
(b) 269 + 10 = 279 (only the tens digit changes: 6 → 7)
(c) 269 + 1 = 270 (ones digit: 9 + 1 = 10, carry to tens)
(a) 369 (b) 279 (c) 270

Q2 Do as directed for 454: (a) Add 100 (b) Add 10 (c) Add 1

SOLUTION

(a) 454 + 100 = 554 (only the hundreds digit changes: 4 → 5)
(b) 454 + 10 = 464 (only the tens digit changes: 5 → 6)
(c) 454 + 1 = 455 (only the ones digit changes: 4 → 5)
(a) 554 (b) 464 (c) 455

Exercise 12.7 — Money — Worked Examples

Q1 Salma buys two bottles of milk for 100. Kiran buys a basket of pomegranates for 100. Circle the one that costs more: a milk bottle or a pomegranate?

SOLUTION

Two milk bottles cost 100, so one milk bottle costs 100 ÷ 2 = 50.
One basket of pomegranates costs 100.
100 > 50, so a pomegranate (basket) costs more than a milk bottle.
A pomegranate (basket) costs more

Q2 Match the notes and coins in the two columns that have the same values.

SOLUTION

This exercise requires matching picture images of notes and coins by their values.
Key equivalences: 1 × 10 note = 10 × 1 coins; 1 × 20 note = 2 × 10 coins; 1 × 50 note = 5 × 10 coins; 1 × 100 note = 10 × 10 coins.
Match each note/coin image on the left to the coin/note combination on the right that equals the same amount.
Match by equal total value (6 pairs). Left column → Right column: (1) Two 50 notes [=100] ↔ one 100 note [row 2 right]; (2) Two 10 notes + two 5 coins [=30] ↔ one 20 note + one 5 coin + remainder [row 3 right, 20+5 area]; (3) One 50 note + one 10 note + two 5 coins [=70] ↔ one 50 note + one 20 note [row 6 right]; (4) Three 5 coins [=15] ↔ one 10 note + one 5 coin [row 5 right]; (5) ~12 1 coins [=12] ↔ one 10 note + two 1 coins [row 5 right]; (6) One 50+20 note [=70] ↔ two 20+two 10+coins. This is an open picture-matching activity; children draw lines between the left and right boxes that show equal totals.

Q3 Use the available notes and coins to buy items costing 55, 30, 28, and 20. Find at least two ways of giving the money for each.

SOLUTION

55: Way 1 — one 50 note + one 5 coin. Way 2 — five 10 notes + one 5 coin.
30: Way 1 — three 10 notes. Way 2 — one 20 note + one 10 note.
28: Way 1 — one 20 note + one 5 coin + three 1 coins. Way 2 — two 10 notes + one 5 coin + three 1 coins.
20: Way 1 — one 20 note. Way 2 — two 10 notes.
Note: actual ways depend on the denominations shown in the picture.
Open activity. Available denominations (shown at top of p.159): 50 note, 20 note, 10 note, 5 coin, 2 coin, 1 coin. Items to buy: 55 (toy car), 30 (onions bag), 28 (milk packet), 20 (crayons). Sample ways — 55: (1) 50+5; (2) 20+20+10+5. 30: (1) 20+10; (2) 10+10+10. 28: (1) 20+5+2+1; (2) 10+10+5+2+1. 20: (1) 20 note; (2) 10+10. Multiple valid answers accepted;

children write/draw in the blank boxes.

Q4 How many 100 notes are equal to a 500 note?

SOLUTION

500 ÷ 100 = 5
So 5 notes of 100 are needed.
5

Q5 In the morning, Peter uncle has 465 in his money box. By afternoon, he has 756. How much has he earned since morning?

SOLUTION

Amount in the afternoon = 756
Amount in the morning = 465
Amount earned = 756 - 465
Ones: 6 - 5 = 1
Tens: 5 - 6 → regroup 1 hundred: 15 - 6 = 9 tens
Hundreds: 7 - 1 (regrouped) - 4 = 2 hundreds
756 - 465 = 291
291

Q6 Today, Peter uncle sold rice for 640 and sugar for 215. How much money has he earned from this sale?

SOLUTION

Money from rice = 640
Money from sugar = 215
Total earned = 640 + 215
Ones: 0 + 5 = 5
Tens: 4 + 1 = 5
Hundreds: 6 + 2 = 8
640 + 215 = 855
855

Exercise 12.8 — Let us Do — Money Word Problems

Q1 One day, Peter uncle earned 650. The next day, he earned 250 more. How much money had he earned by the second day?

SOLUTION

Day 1 earnings = 650
Day 2 extra earnings = 250
Total = 650 + 250
Ones: 0 + 0 = 0
Tens: 5 + 5 = 10 → write 0, carry 1
Hundreds: 6 + 2 + 1 (carried) = 9
650 + 250 = 900
900

Q2 Reena bought groceries for 209. She gave a 500 note to Peter uncle. How much money should Peter uncle return to Reena?

SOLUTION

Amount given = 500
Cost of groceries = 209
Change to return = 500 - 209
Ones: 0 - 9 → regroup 1 ten: 10 - 9 = 1
Tens: 0 - 1 (regrouped) - 0 → regroup 1 hundred: 10 - 1 = 9 tens
Hundreds: 5 - 1 (regrouped) - 2 = 2 hundreds
500 - 209 = 291
291

Q3 Shireen has 150 in her piggy bank. She puts 100 every week in her piggy bank. How much money does she have at the end of four weeks?

SOLUTION

Initial amount = 150
Amount added per week = 100
Amount added in 4 weeks = 4 × 100 = 400
Total = 150 + 400 = 550
550

Q4 Peter uncle saved 250 in the first month, 125 in the second month and 350 in the third month. How much has he saved in these three months?

SOLUTION

Month 1 savings = 250
Month 2 savings = 125
Month 3 savings = 350
Total = 250 + 125 + 350
250 + 125 = 375
375 + 350 = 725
725

Exercise 12.9 — Estimate to the Nearest Hundred

Q1 Estimate 156 + 34 to the nearest hundred.

SOLUTION

156 + 34 = 190
190 rounded to the nearest hundred: 190 is closer to 200 than to 100.
Nearest hundred = 200
200

Q2 Estimate 125 - 15 to the nearest hundred.

SOLUTION

125 - 15 = 110
110 rounded to the nearest hundred: 110 is closer to 100 than to 200.
Nearest hundred = 100
100

Q3 Estimate 105 + 195 to the nearest hundred.

SOLUTION

105 + 195 = 300
300 is already an exact hundred.
Nearest hundred = 300
300

Q4 Estimate 205 + 215 to the nearest hundred.

SOLUTION

205 + 215 = 420
420 rounded to the nearest hundred: 420 is closer to 400 than to 500.
Nearest hundred = 400
400

Q5 Estimate 500 - 395 to the nearest hundred.

SOLUTION

500 - 395 = 105
105 rounded to the nearest hundred: 105 is closer to 100 than to 200.
Nearest hundred = 100
100

Q6 Estimate 765 - 567 to the nearest hundred.

SOLUTION

765 - 567 = 198

198 rounded to the nearest hundred: 198 is closer to 200 than to 100.

Nearest hundred = 200

200

Q7 Estimate 505 + 405 to the nearest hundred.

SOLUTION

505 + 405 = 910

910 rounded to the nearest hundred: 910 is closer to 900 than to 1000.

Nearest hundred = 900

900

Exercise 12.10 — Compare Without Calculating

Q1 Without calculating, circle the one that is more: 373 + 23 or 373 + 40.

SOLUTION

Both start with 373. Adding a larger number gives a larger result.
40 > 23, so 373 + 40 > 373 + 23.
373 + 40

Q2 Without calculating, circle the one that is more: 240 + 10 or 204 + 10.

SOLUTION

Both add 10. The one starting with a larger number gives a larger result.
240 > 204, so 240 + 10 > 204 + 10.
240 + 10

Q3 Without calculating, circle the one that is more: 900 + 9 or 890 + 60.

SOLUTION

900 + 9 = 909
890 + 60 = 950
950 > 909, so 890 + 60 is more.
890 + 60

Q4 Without calculating, circle the one that is more: 345 - 45 or 345 - 54.

SOLUTION

Both start with 345. Subtracting a smaller number leaves more.
45 < 54, so 345 - 45 > 345 - 54.
345 - 45

Q5 Without calculating, circle the one that is more: 800 - 8 or 700 - 8.

SOLUTION

Both subtract 8. The one starting with a larger number gives a larger result.
800 > 700, so 800 - 8 > 700 - 8.
800 - 8

Exercise 12.11 — Find the Equal Pairs

Q1 Find the pairs that are equal among: 516 + 100, 615 - 200, 350 + 50, 400 + 15, 450 - 50, 816 - 200.

SOLUTION

516 + 100 = 616
615 - 200 = 415
350 + 50 = 400
400 + 15 = 415
450 - 50 = 400
816 - 200 = 616
Pairs: (516 + 100) = (816 - 200) = 616
(615 - 200) = (400 + 15) = 415
(350 + 50) = (450 - 50) = 400
516+100 = 816-200 = 616; 615-200 = 400+15 = 415; 350+50 = 450-50 = 400

Exercise 12.12 — Fill in the Boxes — Number Chains

Q1 Fill in the boxes: 156 → (+3) → ___ → (-7) → ___

SOLUTION

156 + 3 = 159
159 - 7 = 152
159 → 152

Q2 Fill in the boxes: 120 → (+3) → ___ → (-7) → ___

SOLUTION

120 + 3 = 123
123 - 7 = 116
123 → 116

Q3 Fill in the boxes: 130 → (+7) → ___ → (-3) → ___

SOLUTION

130 + 7 = 137
137 - 3 = 134
137 → 134

Q4 Fill in the boxes: 175 → (+7) → ___ → (-3) → ___

SOLUTION

175 + 7 = 182
182 - 3 = 179
182 → 179

Exercise 12.13 — Let us Do — Solve the Equations

Q1 (a) 265 + 9

SOLUTION

Ones: 5 + 9 = 14 → write 4, carry 1
Tens: 6 + 0 + 1 (carried) = 7
Hundreds: 2
265 + 9 = 274
274

Q2 (b) 405 + 56

SOLUTION

Ones: 5 + 6 = 11 → write 1, carry 1
Tens: 0 + 5 + 1 (carried) = 6
Hundreds: 4 + 0 = 4
405 + 56 = 461
461

Q3 (c) 825 + 175

SOLUTION

Ones: 5 + 5 = 10 → write 0, carry 1
Tens: 2 + 7 + 1 (carried) = 10 → write 0, carry 1
Hundreds: 8 + 1 + 1 (carried) = 10
825 + 175 = 1000
1000

Q4 (d) 600 - 82

SOLUTION

Ones: 0 - 2 → regroup 1 ten: but tens is also 0, so regroup 1 hundred first → 10 tens; then regroup 1 ten → 10 ones. Ones: 10 - 2 = 8
Tens: 10 - 1 (regrouped) - 8 = 1 ten
Hundreds: 6 - 1 (regrouped) = 5 hundreds
600 - 82 = 518
518

Q5 (e) 568 - 5

SOLUTION

Ones: 8 - 5 = 3
Tens: 6 - 0 = 6
Hundreds: 5 - 0 = 5
568 - 5 = 563
563

Q6 (f) 653 - 356

SOLUTION

Ones: 3 - 6 → regroup 1 ten: 13 - 6 = 7
Tens: 5 - 1 (regrouped) - 5 = -1 → regroup 1 hundred: 15 - 1 - 5 = 9 tens
Hundreds: 6 - 1 (regrouped) - 3 = 2 hundreds
653 - 356 = 297
297