Worksheet - Written addition and subtraction to 4 digits

Year: Year 4 · 20

Show your working.

Question 1

Question 1 – Column addition *(Section A · Practice)*

Work out each addition using the column method. Show every carried digit and check each answer with an estimate.

a. 2 314 + 1 425
b. 3 647 + 2 185
c. 4 958 + 1 763
d. 6 085 + 2 976

Question 2

Question 2 – Column subtraction *(Section A · Practice)*

Work out each subtraction using the column method. Check each answer by adding.

a. 5 472 − 2 318
b. 6 205 − 3 748
c. 7 000 − 2 456
d. 8 031 − 4 567

Question 3

Question 3 – Estimate first *(Section A · Practice)*

Round each number to the nearest 100 to estimate the answer. Then work out the exact answer and compare it with your estimate.

a. 3 189 + 4 712
b. 7 824 − 2 189
c. 2 478 + 5 346

Question 4

Question 4 – Subtracting across zeros *(Section A · Practice)*

Subtract. There are zeros in the top number, so you will need to exchange more than once. Show the exchanges.

a. 4 000 − 1 736
b. 5 008 − 2 349
c. 9 100 − 4 563

Question 5

Question 5 – Inverse operations *(Section A · Practice)*

Use the inverse operation to check each calculation. Write “correct” or “wrong”. If it is wrong, work out the right answer.

a. 2 345 + 1 876 = 4 221
b. 6 000 − 2 475 = 3 525
c. 4 512 − 1 987 = 2 625
d. 3 908 + 2 094 = 6 002

Question 6

Question 6 – Missing digits *(Section A · Practice)*

Each box stands for one missing digit. Work out the missing digits and explain how you found each one.

a. 3 4 ■ 7 + 2 ■ 0 9 = 5 976
b. ■ 3 0 5 − 2 ■ 4 8 = 3 757
c. 4 ■ 8 6 + ■ 3 5 7 = 8 843

Question 7

Question 7 – Holiday flights *(Section B · Real-life practice)*

Sunshine Air flies from Manchester to three holiday islands. The table shows how many passengers flew in July and August.

Island	July	August
Majorca	3 468	4 125
Crete	2 975	3 408
Malta	1 846	2 193

a. How many passengers flew to Majorca in July and August together?
b. How many more passengers flew to Crete in August than in July?
c. What was the total number of passengers to all three islands in July?
d. The airline expected 15 000 passengers in total over the two months. Did it reach this number? Show your working.

Question 8

Question 8 – School fair takings *(Section B · Real-life practice)*

The school fair raised money in four ways. The table shows how many pounds each stall took.

Stall	Money raised
Cake stall	£1 285
Book stall	£967
Games stall	£1 438
Raffle	£2 050

a. How much did the cake stall and the games stall raise together?
b. How much more did the raffle raise than the book stall?
c. What was the total raised by all four stalls?
d. The school wants to buy a climbing frame that costs £6 500. How much more money does it need?

Question 9

Question 9 – Football season *(Section B · Real-life practice)*

Riverside FC played four home games. The number of fans at each game is shown below.

Game	Fans
Game 1	4 872
Game 2	5 036
Game 3	3 998
Game 4	6 215

a. How many fans came to Games 1 and 2 altogether?
b. How many more fans came to Game 4 than to Game 3?
c. Work out the total attendance for all four games.
d. The stadium holds 7 000 fans. How many empty seats were there at Game 2?

Question 10

Question 10 – The long journey *(Section B · Real-life practice)*

The Patel family drive from Cardiff to Inverness in three days. On Day 1 they drive 346 miles. On Day 2 they drive 289 miles. The whole journey is 1 042 miles long, so they drive the rest on Day 3.

a. How many miles have they driven after Day 2?
b. How many miles do they drive on Day 3?

c. On the way home they take a different route of 1 098 miles. How many miles longer is the route home?
d. Dad says the family will drive more than 2 000 miles in total. Is he right? Explain.

Question 11

Question 11 – Zoo visitors *(Section B · Real-life practice)*

Greenfield Zoo counted its visitors in each season last year.

Season	Visitors
Spring	12 340
Summer	25 870
Autumn	9 450
Winter	4 285

a. Round each number to the nearest 1000 and estimate the total for the year.
b. Work out the exact total for the year.
c. How many more people visited in summer than in winter?
d. Which two seasons together had fewer than 15 000 visitors? Give the total for those two seasons.

Question 12

Question 12 – Baking for the cafe *(Section B · Real-life practice)*

A cafe bakes bread every day. On Monday it uses 3 450 g of flour. On Tuesday it uses 2 875 g. A bag of flour holds 5 000 g.

a. How much flour does the cafe use on Monday and Tuesday together?
b. How many whole bags are needed for Monday and Tuesday? How much flour is left over?
c. On Wednesday the cafe has 1 635 g of flour left in an open bag of 5 000 g. How much flour has been used from this bag?
d. Write your answer to part (a) in kilograms and grams.

Question 13

Question 13 – Library loans *(Section B · Real-life practice)*

A town library records how many books are borrowed each month.

Month	Books borrowed
January	3 214
February	2 876
March	3 540

Month	Books borrowed
April	3 107

a. Which month had the most loans? Which had the fewest?
b. What is the difference between the most and the fewest?
c. How many books were borrowed from January to April?
d. The library wants 12 500 loans in four months. Is the total above or below this? By how much?

Question 14

Question 14 – Cycling challenge *(Section B · Real-life practice)*

Amir is training for a charity bike ride. He records how many metres he cycles each week.

Week	Distance (m)
Week 1	4 650
Week 2	5 380
Week 3	6 215
Week 4	7 000

a. How many metres did he cycle in Weeks 1 and 2?
b. How much further did he cycle in Week 4 than in Week 1?
c. What is his total distance for the four weeks?
d. The charity ride is 25 000 m long. How much less than the charity ride is his total for the four weeks?

Question 15

Question 15 – Fundraising *(Section C · Problem solving)*

Class 4B is raising money for the school garden. They run four events. The table shows how much money each event raised. The class wants to raise £3 000. It spends £2 475 on a greenhouse and £386 on tools.

Event	Money raised
Sponsored silence	£764
Bake sale	£1 208
Car wash	£655
Talent show	£1 042

a. Work out the total money raised.
b. How much did the class spend on the greenhouse and the tools together?
c. How much money is left?

d. Did the class reach its target of £3 000? How much more or less?
e. The teacher says that the talent show raised more than the sponsored silence and the car wash together. Is she right? Explain.

Question 16

Question 16 – Theme park weekend *(Section C · Problem solving)*

Wonderland theme park is open every day. On Friday 6 478 people visited. On Saturday there were 2 735 more visitors than on Friday. On Sunday there were 1 904 fewer visitors than on Saturday. The park can safely hold 10 000 visitors on any day.

a. How many people visited on Saturday?
b. How many people visited on Sunday?
c. What was the total number of visitors for the three days?
d. On which day was the park closest to its limit of 10 000? How many spaces were free that day?
e. The park manager says the total for Saturday and Sunday was more than 16 000. Is that correct? Show your working.

Question 17

Question 17 – Three villages *(Section C · Problem solving)*

Three villages are near the river. The population of Aston is 3 584. The population of Bexton is 1 297 more than Aston. The population of Corbury is 2 463 fewer than Bexton.

a. Work out the population of Bexton.
b. Work out the population of Corbury.
c. Find the total population of the three villages.
d. The council will build a new school when the total population of the three villages is more than 12 000. Does it need to build the school yet? How many more people are needed?

Question 18

Question 18 – Van service *(Section C · Problem solving)*

A delivery van has a service every 10 000 miles. The next service is due when the milometer shows 50 000 miles. On Monday morning the milometer showed 47 382 miles. The van drove 1 245 miles on Monday and Tuesday, and then 2 067 miles on the other days of the week.

a. What does the milometer show at the end of Tuesday?
b. How many miles could the van drive after Tuesday before it needed its service?
c. What does the milometer show at the end of the week?
d. By how many miles did the van pass its service point?

e. The next week the van drives 3 000 miles. Will it need another service that week? Explain.

Question 19

Question 19 – The sports shop *(Section C · Problem solving)*

A sports shop keeps a record of the number of items it sold in two sales. Last year the shop sold 12 000 items altogether in the two sales. The table shows how many items were sold in each sale this year.

Item	Winter sale	Summer sale
Trainers	1 245	2 018
Footballs	873	1 450
Other	2 178	2 417

a. How many items were sold in the winter sale?
b. How many items were sold in the summer sale?
c. How many items were sold in the two sales this year?
d. Did the shop sell more or fewer items than last year? By how many?
e. Which row of the table has the biggest difference between the winter sale and the summer sale? What is the difference?

Question 20

Question 20 – Challenge: digit cards *(Section D · Challenge)*

Use each of the digit cards 1, 2, 3, 4, 5, 6, 7 and 8 exactly once to make two 4-digit numbers. Then add the two numbers.

a. Make two numbers with the largest possible sum. Write the sum.
b. Make two numbers with the smallest possible sum. Write the sum.
c. Explain how you chose where to put each digit.