

MATHEMATICS WORKSHEET

Case-Based Study Questions: Addition & Subtraction (Grade 4)

Name: _____ Date: _____

Case 1: The School Book Fair

The elementary school is hosting its annual spring book fair. The organizers want to track how many books are brought in and sold over the weekend.

- On Friday morning, the school library set up **1,250 books** on the shelves.
- By Friday evening, students had bought **385 books**.
- On Saturday morning, a local bookstore donated another **450 books** to add to the fair.

QUESTIONS:

1. How many books were left on the shelves at the end of the day on Friday?
2. What was the total number of books available for sale on Saturday morning after the donation arrived?

Case 2: The Toy Factory Shipping Log

A toy factory in town makes wooden blocks and toy cars. They keep a daily log of their inventory to make sure they can fill all their orders.

- In the morning, the factory has **4,820 wooden blocks** in stock.
- A delivery truck loads up and takes **1,950 wooden blocks** to send to stores.
- Later that afternoon, the machines finish making a new batch of **1,150 wooden blocks**.

QUESTIONS:

1. How many wooden blocks are left in the factory right after the delivery truck departs?
2. By the end of the day, after the new batch is made, how many total wooden blocks does the factory have in stock?

Case 3: The Weekend Farmers Market

A farming family brings their fresh harvest to the local weekend market. They want to see how much produce they sold by the end of Sunday.

Produce Item	Starting Amount (Saturday Morning)	Amount Left Over (Sunday Evening)
Apples	850 kg	175 kg
Potatoes	1,200 kg	340 kg

QUESTIONS:

1. How many kilograms of apples did the family sell over the weekend?
2. How many total kilograms of produce (apples and potatoes combined) did they manage to sell during the market?

Case 4: The Wildlife Sanctuary Bird Count

Volunteers at a nature park are counting the migrating birds that visit their wetlands during the autumn season.

- During the first week of October, volunteers count **2,340 ducks** in the main pond.
- During the second week, a flock of **895 more ducks** flies in to join them.
- By the third week, **1,250 ducks** leave the pond to fly further south for the winter.

QUESTIONS:

1. What was the highest number of ducks in the pond before any of them started flying south?
2. How many ducks remained in the wildlife sanctuary pond during the third week?

Case 5: The Annual School Sports Meet

The local primary school is holding its annual sports day. The physical education teachers are organizing the sports equipment for the track and field events.

- The school started the day with **1,500 tennis balls** in the storage shed.
- During the morning games, students lost **265 tennis balls** in the bushes.
- Before the afternoon games began, a teacher bought a brand-new box containing **350 tennis balls** and added them to the equipment basket.

QUESTIONS:

1. How many tennis balls did the school have left after the morning games?
2. What was the total number of tennis balls available for the afternoon games after the new box was opened?

Case 6: The Charity Bake Sale

A community center is hosting a bake sale to raise funds for a new neighborhood playground. Three friends brought in different treats to sell.

Baker	Cupcakes Brought	Cupcakes Sold
Arjun	450	385
Sanya	620	490
Leo	380	295

QUESTIONS:

1. How many total cupcakes did Arjun and Sanya bring to the bake sale combined?
2. How many total cupcakes were left unsold across all three bakers at the end of the day?

Case 7: The Amusement Park Attendance

A popular amusement park tracks the number of visitors who enter through the main gates to ensure they don't get too crowded.

- On Saturday morning, **3,640 people** entered the park as soon as it opened.
- By lunch time, **1,150 people** decided to leave the park to go home.
- In the evening, another **1,850 people** arrived to watch the laser light show.

QUESTIONS:

1. How many people were inside the amusement park right after the lunchtime departures?
2. How many total people were in the park during the evening show?

Case 8: Planting the Community Garden

A city is creating a large community garden divided into flower beds and vegetable patches. Volunteers are working hard to plant everything before summer.

- The volunteers ordered a total of **2,800 flower seeds**.
- On Saturday, they planted **1,350 marigold seeds**.
- On Sunday, they planted **920 sunflower seeds**.

QUESTIONS:

1. How many total flower seeds did the volunteers plant over the weekend?
2. How many seeds are still left in the packet to be planted during the week?

Case 9: The Mega Toy Store Inventory

A large toy store is getting ready for a massive holiday sale. The manager needs to count the video game consoles in the stockroom.

- The stockroom currently has **5,430 video game consoles** stacked on pallets.
- The store runs a morning promotion and sells **2,680 consoles** to eager customers.
- In the afternoon, a delivery truck arrives from the warehouse and drops off **1,950 more consoles**.

QUESTIONS:

1. How many video game consoles were left in the stockroom right after the morning promotion ended?
2. What is the final number of consoles in the stockroom by the end of the day?

Teacher / Parent Notes:

This worksheet compiles 9 case-based real-world scenarios designed to challenge multi-step logical progression using 3-digit and 4-digit addition and subtraction. Focus areas include interpreting sequential word problems, basic table analysis (Case 3 & Case 6), and parts-to-whole logic framework tracking (Case 8).