



SATISH CHANDRA MEMORIAL SCHOOL

ACADEMIC SESSION: 2025-26

CLASS VI

CASE STUDY & ASSERTION-REASON QUESTION BANK

SEGMENT: NUMBER SYSTEM

CHAPTER 07: FRACTION

CASE STUDY ON FRACTION

Case Study -1

A work was being done by A,B and C. A has done $\frac{2}{3}$ rd of the work and B has done $\frac{1}{6}$ th of the work. Rest of the work is done by C. C does the work in 6 days, B does the work within 3 days and A does the work in 12 days.



- i. Who has done most of the work?
- ii. How much part of the total work was done by C?
- iii. How much part of the work is done by B in 1 day?
- iv. What are the total parts done by A & C in 1 day?
- v. If the complete work would have done by A, how many days would have required?

Case Study -2

Rahul has $\frac{2}{3}$ of a bag of chips. His friend Milton has $\frac{3}{4}$ of a bag of chips. His another friend Tuban has half of the quantity of the chips which Rahul has. Rahul sister Rohini has $\frac{5}{6}$ th of a bag of chip and she has eaten one sixth of the part of the bag which she had. Rahul has eating his one third part of the bag of chips.

- i. Who had the maximum quantity of chips if we compare the chips before being eaten mark?
- ii. How much part of the bag of chips is left with Rohini and Rahul both in total?
- iii. If all the parts of the bag of chips and assembled together how many number of bags and how much part of another same size bag will be required before eating?



- iv. Who had the least quantity of chips if we compare after eating?
- v. Write two equivalent fractions of Milton's part and Tuban's part in each case?

Case Study 3

Rohit ordered a pizza that was cut into 64 slices. He gave $\frac{1}{4}$ of the pizza to his friend, $\frac{1}{8}$ to his sister, and ate $\frac{1}{2}$ himself.



- i. How many slices of pizza did Rohit give to his friend?
- ii. How many slices of pizza did Rohit eat?
- iii. How many slices of pizza are left?
- iv. What fraction of the pizza did Rohit's sister and he himself eat?
- v. If Rohit's friend gave him $\frac{1}{2}$ of his share, how many slices will Rohit get?

Case Study 4

Minu has a water tank that can hold 120 liters of water. She filled $\frac{3}{4}$ of the tank with water.



- i. How many liters of water did Minu fill in the tank?
- ii. What fraction of the tank is still empty?
- iii. If Minu uses $\frac{1}{3}$ of the water in the tank within which she has filled, how many liters will be left?
- iv. If Minu's brother fills $\frac{1}{2}$ of the tank with water, how many liters will be added if Minu does not add any water?
- v. What fraction of the tank will be filled with water after Minu's brother adds 12 liters of water and if no water is added anymore?

Assertion-Reason

Assertion-Reason Question 1

Assertion: The fraction $\frac{3}{4}$ is equal to the fraction $\frac{54}{72}$.

Reason: Both fractions have the same numerator and denominator when simplified.

- A) Both assertion and reason are true.
- B) Both assertion and reason are false.
- C) Assertion is true, but reason is false.
- D) Assertion is false, but reason is true.

Assertion-Reason Question 2

Assertion: The fraction $\frac{13}{14}$ is greater than the fraction $\frac{2}{3}$.

Reason: When we compare fractions with different denominators, we need to find the least common multiple (LCM) of the denominators.

- A) Both assertion and reason are true.
- B) Both assertion and reason are false.
- C) Assertion is true, but reason is false.
- D) Assertion is false, but reason is true.

Assertion-Reason Question 3

Assertion: The fraction $\frac{21}{25}$ can be written as a decimal.

Reason: All fractions can be written as decimals.

- A) Both assertion and reason are true.
- B) Both assertion and reason are false.
- C) Assertion is true, but reason is false.
- D) Assertion is false, but reason is true.

Assertion-Reason Question 4

Assertion: The fraction $\frac{12}{23}$ is equal to the fraction $\frac{24}{46}$.

Reason: Both fractions have the same numerator and denominator when simplified.

- A) Both assertion and reason are true.
- B) Both assertion and reason are false.
- C) Assertion is true, but reason is false.
- D) Assertion is false, but reason is true.

Assertion-Reason Question 5

Assertion: The fraction $\frac{103}{104}$ is a proper fraction.

Reason: A proper fraction is a fraction where the numerator is less than the denominator.

- A) Both assertion and reason are true.
- B) Both assertion and reason are false.
- C) Assertion is true, but reason is false.
- D) Assertion is false, but reason is true.