



AYESHA ALI ACADEMY

A CBSE Senior Secondary Co-Educational School
(Operated By: Ayesha and Ali Padder Foundation, Kanipora Kulgam)

GRADE 7 MATHEMATICS ASSIGNMENT

Chapters: Rational Numbers & Exponents and Powers

Name: _____ Roll No.: _____ Section: _____

Q1. CASE STUDY (RATIONAL NUMBERS)

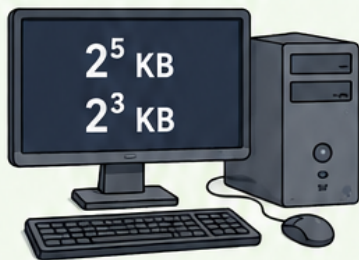


A fruit seller had $\frac{5}{6}$ of a basket of apples in the morning. He sold $\frac{1}{3}$ of the basket during the day and later bought $\frac{1}{4}$ of a basket more.

Answer the following:

1. How much of the basket did he have after selling the apples?
2. How much of the basket did he have after buying more apples?
3. Is the final quantity more or less than one full basket? Explain.
4. Represent the final quantity as a simplified rational number.

Q2. CASE STUDY (EXPONENTS AND POWERS)



A computer stores data in powers of 2. A file contains 2^5 KB of data. Another file contains 2^3 KB of data.

Answer the following:

1. Find the size of each file.
2. What is the total size of both files?
3. If the larger file is copied twice, what is the total storage used?
4. Write 64 as a power of 2.

Q3. PROJECT-BASED ACTIVITY (RATIONAL NUMBERS)

Observe any five real-life situations where rational numbers are used (for example: recipes, measuring cloth, water bottles, marks, fuel, etc.).

Prepare a table showing:



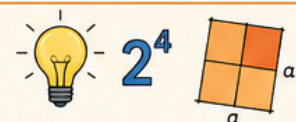
S. No.	Real-Life Situation	Rational Number Used	Mathematical Operation	Final Answer
1.				
2.				
3.				
4.				
5.				

Finally, write 4–5 sentences explaining how rational numbers help us in daily life.

Q4. PROJECT-BASED ACTIVITY (EXPONENTS AND POWERS)

Find five real-life examples where exponents and powers are used (for example: computers, scientific notation, population growth, area of squares, electricity, etc.).

Prepare the table below:



S. No.	Real-Life Situation	Exponential Expression	Value	Conclusion
1.				
2.				
3.				
4.				
5.				

Write 4–5 sentences explaining the importance of exponents and powers in everyday life.

★ Best of Luck! ★