

Integers, Fractions and Rational Numbers Practice Worksheet

Show your working clearly. Send the completed pages to Zova for checking.

Student: Atharv

Date:

Section A - Foundations

1 Evaluate: $-18 + 7 \times (-4) - (-15)$.

2 marks

2 Arrange $-\frac{5}{6}$, $-\frac{7}{9}$, $-\frac{11}{12}$ and $\frac{2}{3}$ in ascending order.

2 marks

3 The temperature was -6°C at midnight. It rose by 11°C and then fell by 8°C . What was the final temperature?

2 marks

4 Write three rational numbers between $-\frac{3}{5}$ and $-\frac{1}{5}$.

2 marks

Section B - Mixed Operations

5 Simplify: $(\frac{3}{4} - \frac{5}{6}) \div (-\frac{2}{3})$.

3 marks

6 Solve for x : $-\frac{3}{5} + x = \frac{7}{10}$. Verify your answer by substitution.

3 marks

- 7 Use the distributive property to evaluate $-17 \times 48 + (-17) \times 52$ without direct multiplication.

3 marks

- 8 A water tank was $\frac{7}{8}$ full. After using $\frac{2}{5}$ of the tank capacity, what fraction remained?

3 marks

Section C - Exam Challenge

- 9 A number is multiplied by $-\frac{4}{7}$ and then $\frac{5}{6}$ is added. The result is $-\frac{13}{18}$. Find the number.

4 marks

- 10 Atharv completed $\frac{3}{8}$ of a paper in the first hour and $\frac{5}{12}$ in the second. What fraction remains? If the paper has 72 questions, how many are unfinished?

4 marks

- 11 A bank account starts at Rs 1,250. Record the final balance after transactions of Rs -875 , Rs $+460$, Rs $-1,125$ and Rs $+900$. Explain the sign of the result.

4 marks

- 12 Prove using rational-number properties that $\left(-\frac{2}{3} + \frac{5}{8}\right) + \frac{7}{12} = -\frac{2}{3} + \left(\frac{5}{8} + \frac{7}{12}\right)$.

4 marks