

ADVANCED OPERATIONS WORKSHEET (CLASS 4)

Question 1: Solve the long multiplication problem below. Show your step-by-step working, including the placeholder zero.

426

 $\times 35$

Question 2: A warehouse packs exactly 4,125 books into boxes. Each box can hold a maximum of 12 books.

How many boxes are completely filled, and how many books are left over?

Filled boxes: _____

Leftover books: _____

Question 3: Look at the solved division problem below. The remainder is hidden.

Without resolving the whole problem, explain the mathematical rule for why the remainder CANNOT be 9.

Problem: $3,452 \div 8 = 431 \text{ R } [?]$

Answer:

Question 4: Find the missing digits (represented by A and B) to make this multiplication step correct:

$$\begin{array}{r} 21A \\ \times 2B \\ \hline \end{array}$$

642 <-- First partial product

Answer: A = _____ , B = _____

Question 5: A stadium has 24 rows of seats, and each row has 115 seats. For a cricket match, 2,650 tickets are sold.

Are there enough seats in the stadium for everyone who bought a ticket? Show your calculations to prove your answer.

Answer:

Question 6: An oil factory produces 1,520 litres of mustard oil. The oil is poured into 6-litre jars until there is not enough oil left to completely fill another jar.

What is the minimum number of 6-litre jars needed to hold ALL of the produced oil safely?

Answer: _____ jars

Question 7: A school charity raises ₹345 every day for 42 days. They want to split the total money equally among 5 local animal shelters.

How much money does each shelter receive, and how much money is left over?

Each shelter receives: ₹ _____

Money left over: ₹ _____

Question 8: A mystery number is multiplied by 24. The product is 8,256.

If you take that same mystery number and divide it by 12, what will the final answer be?

Answer: _____

Question 9: Write a single, multi-step mathematical equation using parentheses () that accurately models and solves the story problem below:

"Riya buys 12 boxes of pens. Each box has 150 pens. She keeps 45 pens for herself and divides the remaining pens equally among 9 classrooms."

Equation:

Question 10: Think critically about remainders. You are dividing a secret 3-digit number by 15.

What is the largest possible remainder you could get from this division? Explain your logical thinking.

Answer: _____