

# Numbers and place value


**Workshop for KV teachers**  
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# A division error

A student solved  $981 \div 9$  and got 19 as the answer. How would you respond to him?

- Is this “method” useful in teaching division?
- How would you teach it in your class?



500 + 500 + 500 + 90 + 8

$$\begin{array}{r}
 6 \overline{) 9588} \\
 \underline{- 3000} \\
 6588 \\
 \underline{- 3000} \\
 3588 \\
 \underline{- 3000} \\
 588 \\
 \underline{- 540} \\
 48 \\
 \underline{- 48} \\
 \hline
 X
 \end{array}$$

- Here is an example of students' work. Analyze her response. How would you respond to her?



Rs 52




Rs 80

Ans:   $52 \div 6 = \underline{80}$


$$\begin{array}{r}
 80 \\
 \hline
 6 \overline{) 52} \\
 \underline{48} \\
 04 \\
 \underline{04} \\
 00
 \end{array}$$

- Here is an example of students' work. Analyze her response. How would you respond to her?

Worksheet 1 -- 18-11-10




Each t-shirt costs  
Rs 36.




$$\begin{array}{r} 5 \overline{) 36} \\ \underline{- 30} \\ 06 \\ \underline{- 06} \\ 00 \end{array}$$

~~Ans: each t-shirt costs~~  
 Ans:  $36 \div 5 = \text{Ans}$

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$$\begin{array}{r} 10 \overline{) 96} \\ \underline{- 90} \\ 06 \\ \underline{- 06} \\ 00 \end{array}$$

Ans:  $96 \div 1 = 10$

# Example from multiplication

Which of the following method can be used for multiplication of any two whole numbers-

$$\begin{array}{r} 35 \\ \times 25 \\ \hline 125 \\ +75 \phantom{0} \\ \hline 875 \end{array}$$

$$\begin{array}{r} 35 \\ \times 25 \\ \hline 175 \\ + 700 \phantom{0} \\ \hline 875 \end{array}$$

$$\begin{array}{r} 35 \\ \times 25 \\ \hline 25 \\ + 150 \phantom{0} \\ + 100 \phantom{00} \\ + 600 \phantom{000} \\ \hline 875 \end{array}$$

# Understanding numbers

Mohsin is in class 5. He helps his father, who is a vegetable seller, with home deliveries. He can find the total amount a customer has to pay and often does the addition mentally. He also knows a lot about how much things cost: TVs, cycles, two wheelers, washing machines, etc. But when his teacher asked him to write 'rupees two thousand twenty five' in numerals, he wrote 'Rs 200025'.

Think about what Mohsin's problem is and how his teacher can help him. How can the teacher make use of what he already knows so that he can learn something he doesn't know?

Thank you!

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