

Mathematics

Division

Examples of long division

$500 \div 7 = ?$

Step 1: Divide the first digit (5) by 7. $5 \div 7 = 0$

(7 is larger than 5, so we consider the next digit).

Step 2: Divide 50 by 7, $50 \div 7 = 7$. Write 7 above the division bar. Multiply $7 \times 7 = 49$ then write 49 below 50.

Step 3: Subtract $50 - 49 = 1$.

Step 4: Bring down the next digit (0). Now we have 10.

Step 5: Divide 10 by 7, $10 \div 7 = 1$. Write 1 above the division bar. Multiply $7 \times 1 = 7$ then write 7 below 10.

Step 6: Subtract, $10 - 7 = 3$.

Final answer : $500 \div 7 = 71 \text{ r } 3$

$$\begin{array}{r} 71 \text{ Remainder } 3 \\ 7 \overline{) 500} \\ \underline{- 49} \downarrow \\ 10 \\ \underline{- 7} \\ 3 \end{array}$$

$200 \div 3 = ?$

Step 1: Divide the first digit (2) by 3. $2 \div 3 = 0$

(3 is larger than 2, so we consider the next digit).

Step 2: Divide 20 by 3, $20 \div 3 = 6$. Write 6 above the division bar. Multiply $3 \times 6 = 18$ then write 18 below 20.

Step 3: Subtract $20 - 18 = 2$.

Step 4: Bring down the next digit (0). Now we have 20.

Step 5: Divide 20 by 3, $20 \div 3 = 6$. Write 6 above the division bar. Multiply $3 \times 6 = 18$ then write 18 below 20.

Step 6: Subtract, $20 - 18 = 2$.

Final answer : $200 \div 3 = 66 \text{ r } 2$

$$\begin{array}{r} 66 \text{ Remainder } 2 \\ 3 \overline{) 200} \\ \underline{- 18} \downarrow \\ 20 \\ \underline{- 18} \\ 2 \end{array}$$