

MATH · GRADES 4–5

Long Division

Step by step

The DMSB process

Long division has 4 steps that REPEAT until done: D — Divide. M — Multiply. S — Subtract. B — Bring down. Some teachers say 'Daddy, Mommy, Sister, Brother' or 'Dirty, Monkeys, Smell, Bad' to remember. Repeat the four steps for each digit of the answer.

Worked example: $752 \div 4$

1. DIVIDE: 4 into 7 = 1 (remainder 3). Write 1 above the 7.
2. MULTIPLY: $1 \times 4 = 4$. Write 4 below the 7.
3. SUBTRACT: $7 - 4 = 3$.
4. BRING DOWN: bring down the 5. Now you have 35.
5. DIVIDE: 4 into 35 = 8 (remainder 3). Write 8 above the 5.
6. MULTIPLY: $8 \times 4 = 32$. Write 32 below.
7. SUBTRACT: $35 - 32 = 3$.
8. BRING DOWN the 2. Now you have 32.
9. DIVIDE: 4 into 32 = 8. Write 8 above the 2.
10. MULTIPLY: $8 \times 4 = 32$. Write 32. Subtract: 0. Done. Answer = 188.

Now try these (use long division)

$84 \div 6 =$

$96 \div 8 =$



 $144 \div 4 =$

$276 \div 3 =$

 $896 \div 7 =$

$525 \div 5 =$

 $1,242 \div 6 =$

$2,016 \div 8 =$

