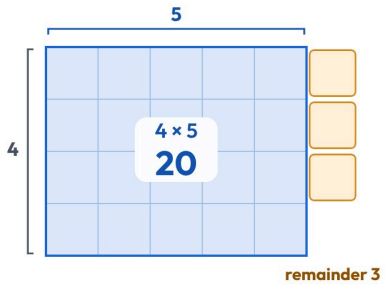
Names (pair) _____ Date _____

Division with a Remainder

Example

23 ÷ 4 = 5 remainder 3

23 = 4 × 5 + 3. The remainder 3 is less than the divisor 4.



We arrange 23 squares in columns of 4. 5 whole columns fit, and 3 squares are left over.

$23 \div 4 = 5$ remainder 3

$23 = 4 \times 5 + 3$

The remainder is always **less than the divisor**: otherwise another column would fit.

1 ON YOUR OWN Divide and check.

calculation	quotient	remainder	check
$29 \div 4$	☐	☐	$4 \times$ ☐ $+$ ☐ $= 29$
$47 \div 6$	☐	☐	$6 \times$ ☐ $+$ ☐ $= 47$
$50 \div 7$	☐	☐	$7 \times$ ☐ $+$ ☐ $= 50$
$38 \div 9$	☐	☐	$9 \times$ ☐ $+$ ☐ $= 38$
$61 \div 8$	☐	☐	$8 \times$ ☐ $+$ ☐ $= 61$

2 IN PAIRS All three problems use $30 \div 4$. Solve them. Is the answer always the same? What did you do with the remainder?

30 pupils go out in boats. 4 pupils fit in one boat. How many boats are needed?	☐
Ana has 30 euros. A ticket costs 4 euros. How many tickets can she buy?	☐
4 children share 30 sweets equally. How many does each get, and how many are left?	☐

Names (pair) _____ Date _____

Remember

In a division with a remainder: **dividend = divisor × quotient + remainder**, and the remainder is less than the divisor. If the remainder is 0, the dividend is divisible by the divisor. In a word problem we always ask what the remainder means.

3 IN PAIRS **Find the mistake.** Ana wrote: $45 \div 6 = 6$ remainder 9. The check $6 \times 6 + 9 = 45$ is right. So why is she wrong?

4 ON YOUR OWN a) Which remainders are possible when dividing by 5? b) What is the greatest number less than 50 that leaves remainder 6 when divided by 7?

a) ☐ b) ☐

5 IN A GROUP CHALLENGE A number leaves remainder 1 when divided by 2, 3 and 4, and it is divisible by 5. What is the smallest such number?

The Multiplication Rectangle app · otooly.com/multiplication-rectangle

Division mode: enter the dividend 23 and divisor 4 and build columns with **Build**. What happens when you try to build one column too many?

★ ON YOUR OWN **Exit card.** $38 \div 5 =$ ☐ remainder ☐ check: ☐