

Lesson 26 **NUMBER****Division with remainders**

WHAT THIS LESSON TEACHES

When you share a number into equal groups and it will not divide evenly, the amount left over is called the remainder. The remainder is always smaller than the number you are dividing by.

- 13 hurleys shared among 4 players gives 3 each, remainder 1.
- $23 \div 5$ gives 4 in each group, remainder 3.

MODEL THIS ON THE BOARD

DIVISION WITH REMAINDER

- ① How many 5s fit into 17? Count 5, 10, 15 — that is **3** groups.
- ② 15 taken from 17 leaves **2**.
- ③ Check: **2** is smaller than 5, so the remainder is correct.

$$\begin{array}{r} 3 \quad r \quad 2 \\ 5 \overline{) 17} \end{array}$$

DISCUSSION STARTER

REFLECT What does a remainder tell you, and why must it always be smaller than the divisor?

ANSWER KEY

Scaffold: visual check on the page

Q1: 4 remainder 3

Q2: 4 remainder 2

Q3: 3 remainder 2

Q4: 7 remainder 2

a) Always — If the remainder were $\geq$ the divisor, you could make another full group.

b) Sometimes — $13 \div 4$ has remainder 1; $12 \div 4$ has remainder 0.

c) Never — Remainder must be smaller than 5, so 0, 1, 2, 3 or 4.

d) Always — Odd numbers are 1 more than a multiple of 2.

EXTENSION SHEET · STRETCH ANSWERS

S1: 16 r 1

S2: 11 r 5

S3: 19 r 2

S4: 11 r 1

S5: 19 r 6

Investigation: What should we do with the leftovers? — open-ended; scan pupils' working for valid solution paths rather than a single answer.