Splitting numbers: answers and notes

What your child practised: partitioning 2-digit numbers into tens and ones, and in other ways (46 = 40 + 6 = 30 + 16), with part-whole models (Year 2 place value).

Page 1 · Warm up

35 · **72** · **58**

Page 2 · Try it together

Any two parts that make 35: 30 + 5, 20 + 15, 10 + 25, 25 + 10, 0 + 35 and more.

Page 2 · A. Part-whole models

58: 50 and **8** · 73: **70** and 3 · the whole is **49** (40 and 9)
Your turn: any parts that make 27, such as 20 and 7, or 10 and 17.

Page 3 · B. Two ways

52 = 50 + **2** = 40 + **12**
37 = 30 + **7** = 20 + **17**
64 = 60 + **4** = 50 + **14**

Page 3 · C. Missing parts

40 + **6** · **80** + 9 · 20 + **5** · 10 + **15**

Page 3 · D. Ways to make 44

Ring **40 + 4**, **30 + 14**, **4 + 40** and **20 + 24**.
Not 34 + 1 (35) or 14 + 20 (34).

Challenge: any two correct ways, such as **50 + 13**, **40 + 23**, 30 + 33 or 20 + 43. Breaking one ten of 60 + 3 gives 50 + 13. Ways like 61 + 2 are right too.

Watch out for

- **Losing the ten**: writing 52 = 40 + 2. When a ten is broken, its 10 ones join the ones part: 40 + 12.
- **Thinking only one split is right.** All the splits are right if the parts add up to the whole.
- **The missing whole** (page 2, A): some children write a part. The whole is the top circle: 40 + 9 = 49.
- **Order**: 4 + 40 is the same as 40 + 4. Adding works in any order.

Going further (5 minutes, no paper)

- **Hands behind your back:** hold 10 small things, put some in each hand. "I have 4 in this hand. How many in the other?"
- **Money splits:** how many ways can you make 25p with 10p, 5p and 1p coins?
- **In the game:** Chapter 5, Croc River, compares numbers with <, > and =.