Fact families: answers and notes

What your child practised: writing multiplication and division facts for equal groups and arrays, using the 2, 3, 4, 5, 8 and 10 times tables (Year 3).

Page 1 · Warm up

2 × 5 = **10** · 4 × 3 = **12** · 20 ÷ 5 = **4** · 24 ÷ 8 = **3**

Page 2 · Try it together

2 rows of 5: 2 × 5 = 10, 5 × 2 = 10, 10 ÷ 2 = 5, 10 ÷ 5 = 2.
3 rows of 8: **3 × 8 = 24, 8 × 3 = 24, 24 ÷ 3 = 8, 24 ÷ 8 = 3.**

Page 2 · A. Arrays

2 × 8 = **16**, 16 ÷ 2 = 8 (or 8 × 2, 16 ÷ 8)
3 × 5 = **15**, 15 ÷ 3 = 5 (or 5 × 3, 15 ÷ 5)
4 × 10 = **40**, 40 ÷ 4 = 10 (or 10 × 4, 40 ÷ 10)

Page 3 · B. Fact families

8 × 5 = 40, 40 ÷ 5 = 8, 40 ÷ 8 = 5
18 ÷ 6 = 3, 3 × 6 = 18, 6 × 3 = 18 (any order)

Page 3 · C. Strawberries

Ring **4 × 5 = 20**, **5 × 4 = 20** and **20 ÷ 4 = 5**. Not 4 + 5 = 9 (that adds) or 4 ÷ 20 = 5 (wrong order).

Page 3 · D. Stories

3 × 10 = **30** pens · 24 ÷ 4 = **6** sweets each

Challenge: No. You can swap the numbers in a × fact (3 × 4 = 4 × 3 = 12), but not in a ÷ fact. 12 ÷ 3 = 4 means 12 shared into 3 groups. 3 ÷ 12 means 3 shared into 12 groups, which is much less than 1 each.

Watch out for

- **Adding instead of multiplying** (4 plates of 5 → 9). Ask "How many groups? How many in each?" and count in 5s together.
- **Swapping a ÷ fact round** (4 ÷ 20). Say it as sharing: "20 shared into 4". The total comes first.
- **Mixing up rows and columns.** Either way round gives the same total, so both × facts are right.

Going further (5 minutes, no paper)

- **Spot an array:** egg boxes, windows, a muffin tray. Say the fact family together.
- **Four facts:** say one fact, like 5 × 3 = 15. Your child says the other three.
- **In the game:** Chapter 2 uses facts you know to work out new ones, by doubling and by multiplying tens.