Digits slide left: answers and notes

What your child practised: multiplying whole numbers by 10, 100 and 1,000 by sliding every digit 1, 2 or 3 places to the left, with zeros holding the empty places (Year 5).

Page 1 · Warm up

7 × 10 = **70** · 7 × 100 = **700** ·
7 × 1,000 = **7,000** · 52 × 10 = **520**

Page 2 · Try it together

Answers will vary. Check that every digit slid the same number of places: 1 for × 10, 2 for × 100, 3 for × 1,000.

Page 2 · A. Multiply

8 × 10 = **80** · 8 × 100 = **800** ·
8 × 1,000 = **8,000** · 64 × 10 = **640** ·
64 × 100 = **6,400** · 30 × 10 = **300** ·
125 × 10 = **1,250** · 125 × 100 = **12,500**

Page 2 · B. Multiplied by

52 × **10** = 520 · 52 × **100** = 5,200 ·
9 × **1,000** = 9,000 · 140 × **100** = 14,000

Page 3 · C. Place value chart

27 × 100 = **2,700** · 409 × 10 = **4,090** ·
6 × 1,000 = **6,000** · 38 × 1,000 = **38,000**

Page 3 · D. Ring the answer

93 × 100 = **9,300** · 7 × 1,000 = **7,000** ·
250 × 10 = **2,500** · 16 × 1,000 = **16,000**

Challenge: No. Sam slid the digits the wrong way (to the right), which divides by 10. Multiplying by 10 slides the digits one place **left**: 45 × 10 = **450**. A quick check: multiplying a whole number by 10 always makes it bigger.

Watch out for

- **Sliding the wrong way**, so 45 × 10 becomes 4.5. Ask "Should the answer be bigger or smaller?" before sliding.
- **Sliding the wrong number of places**, mixing up × 100 and × 1,000. Count the zeros in 100 or 1,000 together, then count the slides.
- **Leaving out a zero** in the middle or end, as in 409 × 10 = 4,90. Every place to the right of the digits, up to the ones, needs a digit.

Going further (5 minutes, no paper)

- **Times-table echo:** say a number, your child says it × 10, then × 100, then × 1,000.
- **Big or small?** Ask "Which is bigger: 6 × 1,000 or 60 × 10?" (6,000 and 600.)
- **In the game:** Chapter 2, Dividing whole numbers by 10, 100 and 1,000, slides the digits the other way, to the right.