

Year 4: Partitioning, the grid method and the distributive law: answers

Year 4 - Short Multiplication and Short Division - Lesson 4.2

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at websink.site/ks2-sats/maths/year-4/ch04-multiplying-dividing/partitioning-the-grid-method-and-the-distributive-law/

Exercise 4B Partitioning, the grid method and the distributive law Non-calculator

1 Work these out in your head. Partition the two-digit number into tens and ones.

(a) $23 \times 3 =$

Answer: 69

(b) $41 \times 5 =$

Answer: 205

(c) $32 \times 4 =$

Answer: 128

(d) $54 \times 6 =$

Answer: 324

(e) $67 \times 3 =$

Answer: 201

(f) $76 \times 8 =$

Answer: 608

2 Find the missing number in each sentence.

(a) $27 \times 4 = (20 \times 4) + (? \times 4)$

Answer: 7

(b) $36 \times 5 = ? + 30$

Answer: 150

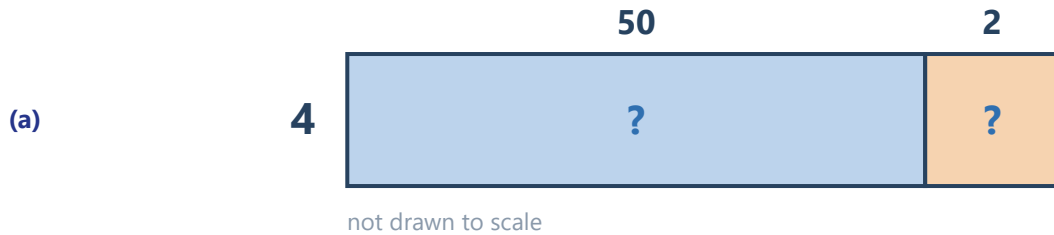
(c) $58 \times 6 = 300 + ?$

Answer: 48

(d) $43 \times 7 = 280 + 21 + ?$

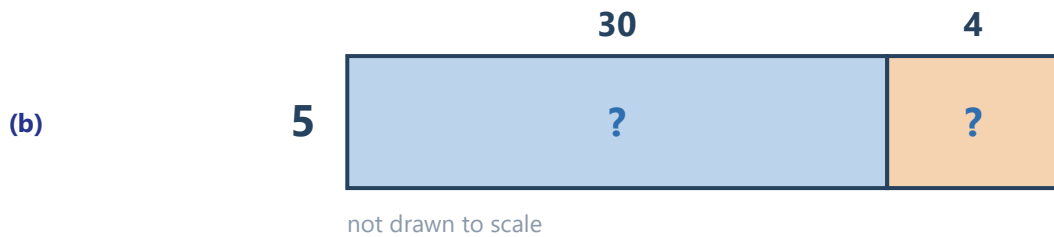
Answer: 301

3 Each area model has missing numbers. Work out the missing numbers and then find the total.



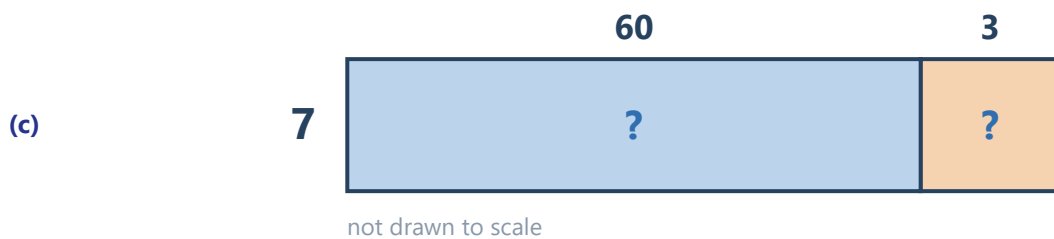
$$52 \times 4 =$$

Answer: 208



$$34 \times 5 =$$

Answer: 170



$$63 \times 7 =$$

Answer: 441

4 Use a round number that is close to help you.

(a) $39 \times 5 =$

Answer: 195

(b) $49 \times 6 =$

Answer: 294

(c) $28 \times 4 =$

Answer: 112

(d) $98 \times 3 =$

Answer: 294

5 Use the grid method.

(a) $46 \times 3 =$

Answer: 138

(b) $73 \times 4 =$

Answer: 292

(c) $58 \times 7 =$

Answer: 406

(d) $84 \times 9 =$

Answer: 756

6 Use the grid method with three-digit numbers.

(a) $213 \times 4 =$

Answer: 852

(b) $325 \times 3 =$

Answer: 975

(c) $452 \times 6 =$

Answer: 2,712

(d) $678 \times 5 =$

Answer: 3,390

7 There is a zero in each number. Use the grid method.

(a) $305 \times 4 =$

Answer: 1,220

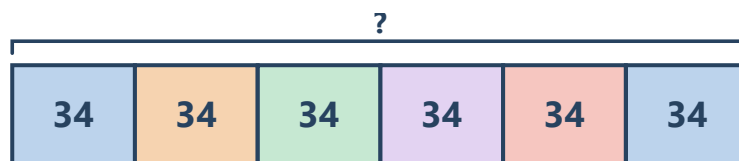
(b) $620 \times 3 =$

Answer: 1,860

(c) $804 \times 5 =$

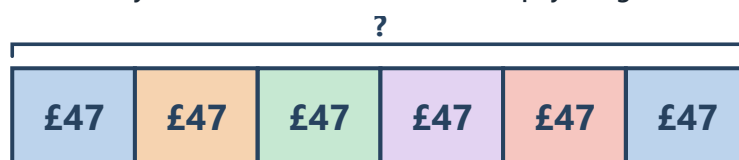
Answer: 4,020

8 A baker puts 34 rolls on each tray. She fills 6 trays. How many rolls is that?



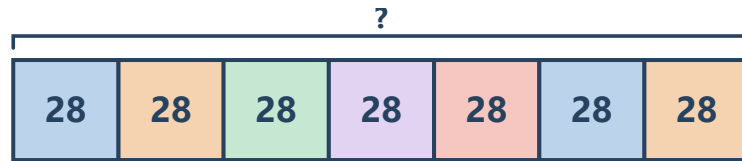
Answer: 204 rolls

9 A concert ticket costs £47. Mei buys 6 tickets. How much does she pay altogether?



Answer: £282

- 10** Leo reads 28 pages of his book every day for a week. There are 7 days in a week. How many pages does he read?



Answer: 196 pages

- 11** Jack says, " $52 \times 6 = 42$, because $5 \times 6 = 30$ and $2 \times 6 = 12$, and $30 + 12 = 42$." Without working out the whole thing first, explain how you know Jack is wrong. Then write the correct answer.

Answer: 312

- 12** Always, sometimes or never? When you multiply a two-digit number by 5, the answer has three digits.

Answer: Sometimes

- 13** Which is greater, 28×6 or 34×5 ? Show how you know.

Answer: 34×5 (170 is more than 168)

- 14** You have three digit cards: 3, 5 and 7. Make a two-digit number and a one-digit number. Multiply them. What is the biggest answer you can make? Use each card once.

Answer: 371 (53×7)