

Year 4: Adding and subtracting in your head: answers

Year 4 - Column Addition and Subtraction - Lesson 2.3

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/ch02-addition-subtraction/adding-and-subtracting-in-your-head/

Exercise 2C Mental strategies Non-calculator

1 Add by partitioning. Split both numbers, add the matching parts, then add the totals.

(a) $254 + 131$

Answer: 385

(b) $1,250 + 2,340$

Answer: 3,590

(c) $527 + 186$

Answer: 713

(d) $3,468 + 1,257$

Answer: 4,725

2 Subtract by partitioning the second number. Take the parts away one at a time.

(a) $879 - 435$

Answer: 444

(b) $4,675 - 1,230$

Answer: 3,445

(c) $924 - 368$

Answer: 556

(d) $5,408 - 2,153$

Answer: 3,255

3 Add by bridging through the next 10 or 100.

(a) $78 + 25$

Answer: 103

(b) $496 + 47$

Answer: 543

(c) $1,985 + 28$

Answer: 2,013

(d) $2,970 + 85$

Answer: 3,055

4 Subtract by bridging. Take away enough to land on a round number first.

(a) $302 - 6$

Answer: 296

(b) $4,102 - 15$

Answer: 4,087

(c) $5,010 - 25$

Answer: 4,985

(d) $3,004 - 19$

Answer: 2,985

5 Add by compensating. Use a nearby round number, then fix the answer.

(a) $347 + 9$

Answer: 356

(b) $586 + 99$

Answer: 685

(c) $2,415 + 199$

Answer: 2,614

(d) $4,356 + 999$

Answer: 5,355

6 Subtract by compensating. Use a nearby round number, then fix the answer.

(a) $83 - 9$

Answer: 74

(b) $645 - 99$

Answer: 546

(c) $1,480 - 198$

Answer: 1,282

(d) $5,206 - 301$

Answer: 4,905

7 Use a near double to add.

(a) $35 + 36$

Answer: 71

(b) $160 + 162$

Answer: 322

(c) $450 + 451$

Answer: 901

(d) $1,200 + 1,201$

Answer: 2,401

8 Find each difference by counting up from the smaller number.

(a) $5,000 - 4,988$

Answer: 12

(b) $3,002 - 2,994$

Answer: 8

(c) $2,000 - 1,875$

Answer: 125

(d) $6,100 - 5,950$

Answer: 150

9 Match each calculation to the best strategy: **counting up**, **compensating**, **a near double**, **partitioning**. Then work out each answer.

Answer: $5,000 - 4,997 = 3$ (counting up); $346 + 99 = 445$ (compensating); $450 + 451 = 901$ (a near double); $3,456 + 2,321 = 5,777$ (partitioning)

10 A comic costs £99 and a game costs £149. How much do they cost together? Work it out in your head.

Answer: £248

11 Jack has a rope that is 304 cm long. He cuts off 8 cm. How long is the rope now?

Answer: 296 cm

12 Leo works out $546 + 99$. He thinks, "Add 100 to get 646, then add 1 to get 647." Spot Leo's mistake and write the correct answer.

Answer: 645

13 Show that $4,999 + 3,999 = 8,998$ without using the column method.

Answer: $4,999 + 3,999 = 5,000 + 4,000 - 2 = 8,998$

14 The sum of two numbers that are next to each other (like 7 and 8) is 1,001. What are the two numbers?

Answer: 500 and 501