

Year 5: Adding and subtracting in your head: answers

Year 5 - 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-5/ch02-addition-subtraction/adding-and-subtracting-in-your-head/

Exercise 2C Mental strategies Non-calculator

1 Add by partitioning. Keep the first number whole and add the parts of the second number one at a time.

(a) $36,400 + 25,800$

Answer: 62,200

(b) $4,675 + 3,230$

Answer: 7,905

(c) $52,300 + 17,450$

Answer: 69,750

(d) $240,500 + 135,200$

Answer: 375,700

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

(a) $8,764 - 3,425$

Answer: 5,339

(b) $54,300 - 21,800$

Answer: 32,500

(c) $96,500 - 43,250$

Answer: 53,250

3 Add by bridging through the next 100 or 1,000.

(a) $5,970 + 2,400$

Answer: 8,370

(b) $7,980 + 300$

Answer: 8,280

(c) $46,950 + 4,200$

Answer: 51,150

(d) $2,990 + 3,500$

Answer: 6,490

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

(a) $7,300 - 2,450$

Answer: 4,850

(b) $6,020 - 450$

Answer: 5,570

(c) $52,004 - 1,500$

Answer: 50,504

(d) $30,070 - 350$

Answer: 29,720

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

(a) $36,450 + 9,999$

Answer: 46,449

(b) $4,586 + 99$

Answer: 4,685

(c) $24,315 + 198$

Answer: 24,513

(d) $7,348 + 1,999$

Answer: 9,347

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

(a) $54,300 - 1,999$

Answer: 52,301

(b) $8,645 - 99$

Answer: 8,546

(c) $6,480 - 298$

Answer: 6,182

(d) $90,250 - 9,998$

Answer: 80,252

7 Use a number fact to add. Think about which pair of numbers makes 100.

(a) $47,500 + 2,500$

Answer: 50,000

(b) $63,600 + 6,400$

Answer: 70,000

(c) $8,250 + 750$

Answer: 9,000

(d) $372,000 + 28,000$
Answer: 400,000

8 Subtract from 1,000, 10,000 or 100,000. Use a number bond to 100.

(a) $10,000 - 3,600$
Answer: 6,400

(b) $100,000 - 35,000$
Answer: 65,000

(c) $1,000 - 650$
Answer: 350

(d) $100,000 - 82,000$
Answer: 18,000

9 Count how many thousands or ten thousands there are, then work out each answer.

(a) $340,000 + 270,000$
Answer: 610,000

(b) $800,000 - 350,000$
Answer: 450,000

(c) $47,000 + 38,000$
Answer: 85,000

(d) $91,000 - 56,000$
Answer: 35,000

10 Use a near double to add.

(a) $35,000 + 36,000$
Answer: 71,000

(b) $2,500 + 2,600$
Answer: 5,100

(c) $48,000 + 49,000$
Answer: 97,000

(d) $350,000 + 360,000$
Answer: 710,000

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

(a) $100,000 - 96,250$
Answer: 3,750

(b) $60,000 - 58,450$

Answer: 1,550

(c) $30,002 - 29,985$

Answer: 17

(d) $1,000,000 - 987,500$

Answer: 12,500

- 12** Match each calculation to the best strategy: **counting up**, **compensating**, **a near double**, **a number fact**. Then work out each answer.

$60,000 - 59,994$ $7,348 + 999$ $45,000 + 45,200$ $8,500 + 1,500$

Answer: $60,000 - 59,994 = 6$ (counting up); $7,348 + 999 = 8,347$ (compensating); $45,000 + 45,200 = 90,200$ (a near double); $8,500 + 1,500 = 10,000$ (a number fact)

- 13** A phone costs £399 and a tablet costs £249. How much do they cost together? Work it out in your head.

Answer: £648

- 14** A school sells raffle tickets. There are 10,000 tickets and 6,400 have been sold. How many tickets are left? Work it out in your head.

Answer: 3,600 tickets

- 15** Leo works out $7,348 + 999$. He thinks, "Add 1,000 to get 8,348, and that is my answer." Spot Leo's mistake and write the correct answer.

Answer: 8,347

- 16** Prove it. Show that $49,999 + 29,999 = 79,998$ without using the column method.

Answer: $49,999 + 29,999 = 50,000 + 30,000 - 2 = 79,998$

- 17** Two numbers add up to 70,000. The difference between them is 12,000. What are the two numbers? Work it out in your head.



Answer: 29,000 and 41,000