



MATHEMATICS



N.S. Yr. 4 P.46

**Use known number facts to add
or subtract pairs of numbers mentally.**

Equipment

Paper, pencil, ruler
Number cards
Stop clock

MathSphere

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Concepts

In year 4 children are expected to be able to calculate mentally using a variety of methods. They are also expected to explain their methods, both orally and in writing.

The main skills involved are:

- a. adding a single digit to a three or four digit number, crossing the tens boundary
eg $365 + 8 =$

- b. subtracting a single digit from a three or four digit number, crossing the tens boundary

eg $363 - 7 =$

- c. subtracting a single digit from a whole 100 or 1 000

eg $1\,000 - 7 =$

- d. find the difference between two numbers which are close to a whole thousand, but either side of it

eg $3\,005 - 2\,998 =$

- e. find what needs to be added to a whole hundreds number to make it up to the next thousand

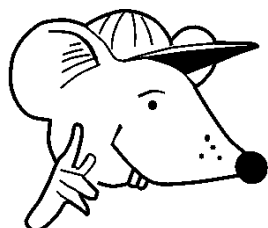
eg $4\,500 + \boxed{} = 5\,000$

- f. add or subtract any pair of two digit numbers

eg $36 + 46 =$ or

$83 - 27 =$

All methods used must be explained by the child, in words and writing.

Adding a single digit

Write the answers down to the sums below as quickly as you can - do not do any working out on paper

- | | | | |
|-----------------|-----------------|-----------------|-----------------|
| 1. $437 + 4 =$ | 2. $528 + 3 =$ | 3. $735 + 6 =$ | 4. $243 + 9 =$ |
| 5. $348 + 5 =$ | 6. $139 + 2 =$ | 7. $685 + 7 =$ | 8. $816 + 8 =$ |
| 9. $183 + 9 =$ | 10. $242 + 9 =$ | 11. $168 + 4 =$ | 12. $534 + 7 =$ |
| 13. $357 + 5 =$ | 14. $712 + 8 =$ | 15. $6 + 317 =$ | 16. $5 + 326 =$ |
| 17. $9 + 349 =$ | 18. $8 + 487 =$ | 19. $3 + 199 =$ | 20. $4 + 297 =$ |

Work out mentally the answers to the next set of sums. Next to each one write down the method you used to do it.

Eg $538 + 6 =$

I added two to make 40 then counted on four more to make 544

21. $279 + 5 =$

Explain:

22. $538 + 8 =$

Explain:

23. $175 + 6 =$

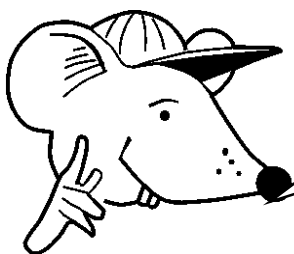
Explain:

24. $429 + 8 =$

Explain:

25. $377 + 6 =$

Explain:

Adding a single digit

In your head, as fast as you can,
answers only!
Go! Go! Go!

1. $527 + 5 =$

2. $617 + 4 =$

3. $146 + 6 =$

4. $162 + 9 =$

5. $218 + 5 =$

6. $149 + 2 =$

7. $383 + 7 =$

8. $619 + 8 =$

9. $276 + 9 =$

10. $151 + 9 =$

11. $248 + 4 =$

12. $814 + 7 =$

13. $735 + 5 =$

14. $807 + 8 =$

15. $6 + 184 =$

16. $5 + 227 =$

17. $9 + 666 =$

18. $8 + 777 =$

19. $3 + 888 =$

20. $4 + 789 =$

Work out mentally the answers to the next set of sums. Next to each one write down the method you used to do it.

Eg $187 + 6 =$

I added three to make 190 then counted on three more to 193

21. $178 + 5 =$

Explain:

22. $388 + 9 =$

Explain:

23. $717 + 6 =$

Explain:

24. $545 + 8 =$

Explain:

25. $808 + 6 =$

Explain:

Complete these questions by putting the correct number in the boxes.

1. $417 + 7 = \boxed{}$

2. $537 + 6 = \boxed{}$

3. $183 + \boxed{} = 190$

4. $584 + \boxed{} = 593$

5. $\boxed{} + 6 = 344$

6. $\boxed{} + 4 = 172$

7. $8 + \boxed{} = 460$

8. $5 + \boxed{} = 212$

9. $329 + 6 = \boxed{}$

10. $588 + 4 = \boxed{}$

Work out the next five answers. Write down how you did them.

11. $263 + \boxed{} = 271$

12. $725 + \boxed{} = 733$

13. $\boxed{} + 5 = 611$

14. $\boxed{} + 8 = 540$

15. $533 + 8 = \boxed{}$

Explain:



I counted on 7 up to 270 and then added one more making plus 8

Explain:

Explain:

Explain:

Explain:

Complete these questions by putting the correct number in the boxes.

1. $328 + 6 = \boxed{}$

2. $646 + 5 = \boxed{}$

3. $292 + \boxed{} = 301$

4. $693 + \boxed{} = 702$

5. $\boxed{} + 3 = 441$

6. $\boxed{} + 5 = 263$

7. $9 + \boxed{} = 370$

8. $6 + \boxed{} = 321$

9. $413 + 9 = \boxed{}$

10. $698 + 4 = \boxed{}$

Work out the next five answers. Write down how you did them.

11. $372 + \boxed{} = 381$

Explain:



I counted on 8 up to 380 and then added one more making 9

12. $816 + \boxed{} = 824$

Explain:

13. $\boxed{} + 6 = 722$

Explain:

14. $\boxed{} + 8 = 651$

Explain:

15. $642 + 9 = \boxed{}$

Explain:

Subtracting single digits from whole hundreds

Complete these questions by putting the correct number in the boxes.

1. $200 - 7 =$

2. $300 - 4 =$

3. $700 - 5 =$

4. $400 - 8 =$

5. $500 - 6 =$

6. $800 - 9 =$

7. $600 - 3 =$

8. $100 - 7 =$



On the next set of questions write down how you did the sum in your head.

9. $700 -$ $= 692$

10. $200 -$ $= 194$

11. $- 8 = 292$

12. $- 6 = 694$

Explain:

Explain:

Subtracting single digits from whole hundreds

Complete these questions by putting the correct number in the boxes.

1. $300 - 8 =$

2. $400 - 5 =$

3. $800 - 6 =$

4. $200 - 9 =$

5. $600 - 4 =$

6. $300 - 2 =$

7. $500 - 1 =$

8. $900 - 7 =$



On the next set of questions write down how you did the sum in your head.

9. $800 -$ $= 793$

10. $300 -$ $= 295$

11. $- 7 = 193$

12. $- 8 = 792$

Explain:

Explain:

Subtraction crossing the hundreds boundary

Write the answers in the boxes below to make the sums correct.

1. $206 - 8 =$

2. $105 - 7 =$

3. $803 - 8 =$

4. $207 - 8 =$

5. $602 - 3 =$

6. $301 - 2 =$

7. $505 - 6 =$

8. $902 - 4 =$

Now try these:

9. $503 -$ $= 497$

10. $604 -$ $= 598$

11. $702 -$ $= 695$

12. $307 -$ $= 299$

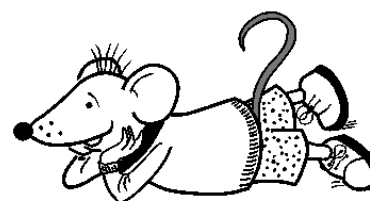
13. $- 8 = 293$

14. $- 7 = 594$

15. $- 4 = 98$

16. $- 7 = 698$

Well, I guess you are getting quite quick at these now. Explain how you did them to someone else - a friend, your teacher.. or me if you can't find anyone else!!



Subtraction crossing the hundreds boundary

Write the answers in the boxes below to make the sums correct.

1. $307 - 9 =$

2. $202 - 5 =$

3. $901 - 2 =$

4. $308 - 9 =$

5. $504 - 6 =$

6. $605 - 8 =$

7. $703 - 5 =$

8. $906 - 9 =$

Now try these:

9. $607 -$ $= 598$

10. $401 -$ $= 393$

11. $704 -$ $= 696$

12. $305 -$ $= 297$

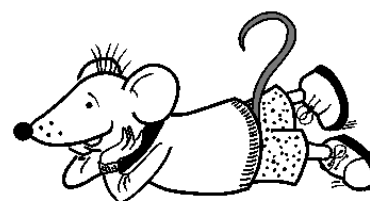
13. $- 9 = 295$

14. $- 8 = 494$

15. $- 5 = 298$

16. $- 7 = 299$

How did you do these?
I did most of them by adding.
Funny how so many subtraction
sums can be done by adding.



Subtracting from thousands

Without doing any working out on paper, write the answers to these sums:

1. $2\ 000 - 4 =$

2. $3\ 000 - 8 =$

3. $5\ 000 - 3 =$

4. $6\ 000 - 7 =$

5. $- 4 = 2\ 996$

6. $- 7 = 1\ 993$

7. $- 8 = 1\ 992$

8. $- 5 = 5\ 995$

9. $6\ 000 -$ $= 5\ 991$

10. $4\ 000 -$ $= 3\ 993$

11. $1\ 000 -$ $= 997$

12. $2\ 000 -$ $= 1\ 994$

Now you might find the next few
a bit tricky - have a go anyway!



13. $5\ 002 - 7 =$

14. $2\ 007 - 9 =$

15. $4\ 005 - 8 =$

16. $3\ 004 - 6 =$

Subtraction crossing the hundreds boundary

Without doing any working out on paper, write the answers to these sums:

1. $3\ 000 - 2 =$

2. $4\ 000 - 1 =$

3. $6\ 000 - 4 =$

4. $8\ 000 - 5 =$

5. $- 6 = 8\ 994$

6. $- 8 = 2\ 992$

7. $- 3 = 4\ 997$

8. $- 7 = 5\ 993$

9. $7\ 000 -$ $= 6\ 992$

10. $5\ 000 -$ $= 4\ 994$

11. $6\ 000 -$ $= 5\ 998$

12. $3\ 000 -$ $= 2\ 991$

It's going to get harder now,
especially for all you super
brains!



13. $4\ 006 - 8 =$

14. $3\ 008 - 9 =$

15. $7\ 001 - 4 =$

16. $6\ 007 - 8 =$

Subtracting from thousands - harder examples

These look quite hard, but if you count on from the lower number, they suddenly become really easy!! Now, think how to do the next few sums....

1. $3\ 002 - 2\ 998 = \boxed{}$

2. $1\ 003 - 998 = \boxed{}$

3. $4\ 005 - 3\ 995 = \boxed{}$

4. $7\ 002 - 6\ 996 = \boxed{}$

5. $5\ 002 - 4\ 997 = \boxed{}$

6. $2\ 002 - 1\ 999 = \boxed{}$

..and the next ones. They look harder than they really are.



7. $6\ 002 - \boxed{} = 9$

8. $4\ 003 - \boxed{} = 6$

9. $5\ 004 - \boxed{} = 7$

10. $2\ 005 - \boxed{} = 8$

11. $\boxed{} - 3\ 998 = 5$

12. $\boxed{} - 5\ 997 = 9$

13. $\boxed{} - 5\ 994 = 6$

14. $\boxed{} - 1\ 998 = 4$

15. $\boxed{} - 2\ 992 = 8$

16. $\boxed{} - 6\ 994 = 7$

Subtracting from thousands - harder examples

1. $4\ 001 - 3\ 994 =$

2. $2\ 002 - 1\ 995 =$

3. $5\ 004 - 4\ 997 =$

4. $8\ 005 - 7\ 999 =$

5. $6\ 001 - 5\ 992 =$

6. $3\ 003 - 2\ 998 =$



Try counting back for the next four sums, each time going down to the thousands below.

7. $7\ 004 -$ $= 8$

8. $5\ 002 -$ $= 7$

9. $6\ 005 -$ $= 6$

10. $3\ 006 -$ $= 9$

..and I would count on for these next six.



11. $- 4\ 997 = 8$

12. $- 4\ 996 = 8$

13. $- 6\ 998 = 5$

14. $- 993 = 9$

15. $- 3\ 997 = 6$

16. $- 5\ 995 = 6$

Add and subtract pairs of two digit numbers

Work these out mentally - write the answers down.

1. $43 + 54 =$

2. $63 + 25 =$

3. $27 + 32 =$

4. $37 + 25 =$

5. $28 + 19 =$

6. $52 + 49 =$

7. $61 + 43 =$

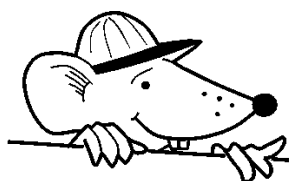
8. $26 + 63 =$

9. $25 + 56 =$

10. $74 + 18 =$

11. $48 + 43 =$

12. $73 + 45 =$



Why do bees hum?

Because they've forgotten the words.

Half way through this page now!

13. $54 - 27 =$

14. $32 - 16 =$

15. $64 - 32 =$

16. $31 - 18 =$

17. $63 - 28 =$

18. $50 - 43 =$

19. $72 - 55 =$

20. $91 - 64 =$

21. $70 - 56 =$

22. $61 - 48 =$

23. $45 - 26 =$

24. $90 - 76 =$

Add and subtract pairs of two digit numbers

Work these out mentally - write the answers down.

1. $36 + 45 =$

2. $54 + 34 =$

3. $38 + 23 =$

4. $46 + 36 =$

5. $35 + 60 =$

6. $61 + 58 =$

7. $70 + 52 =$

8. $42 + 79 =$

9. $37 + 65 =$

10. $83 + 26 =$

11. $56 + 65 =$

12. $72 + 19 =$



What's the easiest way to count a large herd of cattle?

Use a cowculator.

You don't need one for these!

13. $72 - 47 =$

14. $23 - 16 =$

15. $75 - 42 =$

16. $47 - 28 =$

17. $74 - 58 =$

18. $81 - 63 =$

19. $93 - 75 =$

20. $85 - 16 =$

21. $52 - 26 =$

22. $77 - 58 =$

23. $44 - 36 =$

24. $46 - 16 =$

Answers

Page 3								
1. 441	2. 531	3. 741	4. 252	5. 353	6. 141	7. 692	8. 824	
9. 192	10. 251	11. 172	12. 541	13. 362	14. 720	15. 323	16. 331	
17. 358	18. 495	19. 202	20. 301	21. 284	22. 546	23. 181	24. 437	25. 383
Page 4								
1. 532	2. 621	3. 152	4. 171	5. 223	6. 151	7. 390	8. 627	
9. 285	10. 160	11. 252	12. 821	13. 740	14. 815	15. 190	16. 232	
17. 675	18. 785	19. 891	20. 793	21. 183	22. 397	23. 723	24. 553	25. 814
Page 5								
1. 424	2. 543	3. 7	4. 9	5. 338	6. 168	7. 452	8. 207	
9. 335	10. 592	11. 8	12. 8	13. 606	14. 532	15. 541	with explanations.	
Page 6								
1. 334	2. 651	3. 9	4. 9	5. 438	6. 258	7. 361	8. 315	
9. 422	10. 702	11. 9	12. 8	13. 716	14. 643	15. 651	with explanations.	
Page 7								
1. 193	2. 296	3. 695	4. 392	5. 494	6. 791			
7. 597	8. 93	9. 8	10. 6	11. 300	12. 700			
Page 8								
1. 292	2. 395	3. 794	4. 191	5. 596	6. 298			
7. 499	8. 893	9. 7	10. 5	11. 200	12. 800			
Page 9								
1. 198	2. 98	3. 795	4. 199	5. 599	6. 299	7. 499	8. 898	
9. 6	10. 6	11. 7	12. 8	13. 301	14. 601	15. 102	16. 705	
Page 10								
1. 298	2. 197	3. 899	4. 299	5. 498	6. 597	7. 698	8. 897	
9. 9	10. 8	11. 8	12. 8	13. 304	14. 502	15. 303	16. 306	
Page 11								
1. 1 996	2. 2 992	3. 4 997	4. 5 993	5. 3 000	6. 2 000	7. 2 000	8. 6 000	
9. 9	10. 7	11. 3	12. 6	13. 4 995	14. 1 998	15. 3 997	16. 2 998	
Page 12								
1. 2 998	2. 3 999	3. 5 996	4. 7 995	5. 9 000	6. 3 000	7. 5 000	8. 6 000	
9. 8	10. 6	11. 2	12. 9	13. 3 998	14. 2 999	15. 6 997	16. 5 999	

Answers**Page 13**

1. 4	2. 5	3. 10	4. 6	5. 5	6. 3	7. 5 993	8. 3 997
9. 4 997	10. 1 997	11. 4 003	12. 6 006	13. 6 000	14. 2 002	15. 3 000	16. 7 001

Page 14

1. 7	2. 7	3. 7	4. 6	5. 9	6. 5	7. 6 996	8. 4 995
9. 5 999	10. 2 997	11. 5 005	12. 5 004	13. 7 003	14. 1 002	15. 4 003	16. 6 001

Page 15

1. 97	2. 88	3. 59	4. 62	5. 47	6. 101	7. 104	8. 89
9. 81	10. 92	11. 91	12. 118	13. 27	14. 16	15. 32	16. 13
17. 35	18. 7	19. 17	20. 27	21. 14	22. 13	23. 19	24. 14

Page 16

1. 81	2. 88	3. 61	4. 82	5. 95	6. 119	7. 122	8. 121
9. 102	10. 109	11. 121	12. 91	13. 25	14. 7	15. 33	16. 19
17. 16	18. 18	19. 18	20. 69	21. 26	22. 19	23. 8	24. 30