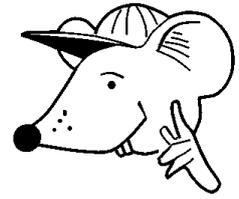


# MATHEMATICS



**N.S. Yr. 5 P.47**

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

## Equipment

Paper, pencil, ruler  
Number cards  
Stop clock

# MathSphere

© MathSphere P.O. Box 1234 Worthing BN13 2UJ [www.mathsphere.co.uk](http://www.mathsphere.co.uk)

### Concepts

In year 5 children are expected to continue to calculate mentally using a variety of methods, but working with larger numbers, especially thousands, and with decimals. They are also expected to explain their methods, both orally and in writing.

The main skills involved are:

- a. Finding the difference between two numbers that are either side of a multiple of thousands

Eg find the difference between **6 005** and **5 898**

This is probably best done by counting on **2** from **5 898** to make **5 900**  
then counting on **100** to make **6 000**  
then counting on the extra **5** to make **6 005**  
answer:  **$100 + 2 + 5 = 107$**

b. **6 005** -  = **107**

this type of question can be tackled in several ways, one of the best being a subtraction of **107** from **6 005**

eg **6 005 subtract 100 = 5 905**  
**5 905 subtract 7 = 5 898**

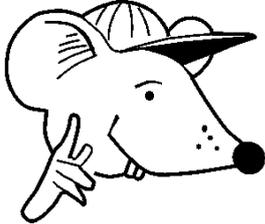
c.  - **5 898 = 107**

this can be done by adding **5 898** and **107**

eg  **$5 898 + 100 = 5 998$**   
 **$5 998 + 7 = 6 005$**

Similar examples using decimals to tenths and hundredths are also included.

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

Mental arithmetic - adding to thousands

Try adding these as quickly as you can - do not do any working out on paper, just "in your head!"

1.  $3\,997 + 6 =$

2.  $2\,998 + 3 =$

3.  $1\,993 + 8 =$

4.  $4\,999 + 2 =$

5.  $6\,993 + 9 =$

6.  $5\,996 + 6 =$

7.  $8\,995 + 7 =$

8.  $7\,994 + 8 =$

9.  $5\,993 + 9 =$

10.  $4\,998 + 8 =$

11.  $6\,993 + 9 =$

12.  $5\,995 + 6 =$

**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**  $3\,999 + 5 = 4\,004$

Explain: I added one to make 4 000 then counted on four more to make 4 004

13.  $7\,992 + 9 =$

Explain:

14.  $6\,994 + 7 =$

Explain:

15.  $2\,996 + 8 =$

Explain:

**Mental arithmetic - adding to thousands**



Fast as you can - answers only - don't write anything else down on paper.

1.  $3\ 998 + 3 =$

2.  $2\ 997 + 4 =$

3.  $1\ 996 + 6 =$

4.  $4\ 993 + 8 =$

5.  $6\ 998 + 8 =$

6.  $5\ 997 + 7 =$

7.  $8\ 994 + 9 =$

8.  $7\ 999 + 3 =$

9.  $5\ 996 + 7 =$

10.  $4\ 995 + 8 =$

11.  $6\ 999 + 9 =$

12.  $5\ 997 + 6 =$

**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**  $4\ 996 + 7 = 5\ 003$

Explain: I added 4 to make 5 000 then counted on 3 more to make 5 003

13.  $7\ 994 + 7 =$

Explain:

14.  $1\ 998 + 5 =$

Explain:

15.  $6\ 999 + 8 =$

Explain:

**Find the difference - mental arithmetic**

1.  $6\ 002 - 5\ 899 = \square$

2.  $2\ 002 - 1\ 895 = \square$

3.  $4\ 003 - 3\ 980 = \square$

4.  $7\ 006 - 6\ 987 = \square$

5.  $\square - 7\ 983 = 26$

6.  $\square - 3\ 987 = 18$

7.  $4\ 003 - \square = 17$

8.  $2\ 006 - \square = 12$

9.  $7\ 001 - \square = 14$

10.  $6\ 006 - \square = 9$

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

11.  $2\ 004 - \square = 13$

Explain:



4 from 13 leaves 9. Take 9 off 2 000 makes 1 991.

12.  $3\ 007 - \square = 12$

Explain:

13.  $\square - 3\ 994 = 16$

Explain:

14.  $\square - 1\ 989 = 17$

Explain:

15.  $1\ 002 - \square = 9$

Explain:

**Find the difference - mental arithmetic**

1.  $7\ 003 - 6\ 994 =$

2.  $3\ 004 - 2\ 989 =$

3.  $3\ 007 - 2\ 985 =$

4.  $6\ 003 - 5\ 988 =$

5.  -  $3\ 988 = 18$

6.  -  $4\ 986 = 19$

7.  $7\ 006 -$    $= 15$

8.  $2\ 004 -$    $= 11$

9.  $5\ 005 -$    $= 12$

10.  $8\ 001 -$    $= 16$

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

11.  $4\ 007 -$    $= 15$

Explain:



7 from 15 leaves 8. Take 8 off 4 000 makes 3 992.

12.  $3\ 009 -$    $= 14$

Explain:

13.  -  $2\ 988 = 17$

Explain:

14.  -  $1\ 992 = 11$

Explain:

15.  $4\ 005 -$    $= 17$

Explain:

**Adding decimal fractions - mental arithmetic**

1.  $2.5 + 3.4 =$

2.  $3.6 + 3.3 =$

3.  $4.5 + 4.5 =$

4.  $6.3 + 2.4 =$

5.  $5.7 + 3.3 =$

6.  $2.9 + 4.4 =$

7.  $7.3 + 1.6 =$

8.  $6.8 + 5.5 =$



And now for something even harder;  
adding tenths and hundredths!!  
I bet you're better at these than I am!

9.  $0.15 + 0.54 =$

10.  $0.32 + 0.17 =$

11.  $0.33 + 0.56 =$

12.  $0.38 + 0.43 =$

13.  $0.74 + 0.16 =$

14.  $0.65 + 0.28 =$

15.  $0.46 + 0.71 =$

16.  $0.82 + 0.09 =$

**Adding decimal fractions - mental arithmetic**

1.  $3.6 + 5.3 =$

2.  $4.7 + 2.5 =$

3.  $5.4 + 2.6 =$

4.  $7.2 + 1.7 =$

5.  $4.8 + 2.2 =$

6.  $1.6 + 3.5 =$

7.  $2.8 + 1.9 =$

8.  $5.3 + 1.8 =$



What do baby apes sleep in?

*Apricots!!!*

9.  $0.26 + 0.13 =$

10.  $0.43 + 0.28 =$

11.  $0.55 + 0.19 =$

12.  $0.49 + 0.29 =$

13.  $0.85 + 0.08 =$

14.  $0.36 + 0.17 =$

15.  $0.44 + 0.48 =$

16.  $0.84 + 0.07 =$

### Subtraction of decimals

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

1.  $6.3 - 3.2 =$

2.  $5.4 - 3.3 =$

3.  $7.5 - 2.8 =$

4.  $6.2 - 1.6 =$

5.  $4.8 - 3.9 =$

6.  $2.1 - 0.7 =$

7.  $8.4 - 5.6 =$

8.  $3.8 - 1.9 =$

Now try these:

9.  $0.36 - 0.24 =$

10.  $0.42 - 0.39 =$

11.  $0.61 - 0.45 =$

12.  $0.76 - 0.09 =$

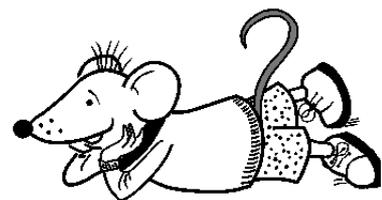
13.  $0.85 - 0.66 =$

14.  $0.93 - 0.27 =$

15.  $0.53 - 0.48 =$

16.  $0.72 - 0.27 =$

Hi! Doing well I hope. These are just like tens and units subtraction really - not much different apart from the decimal point.



### Subtraction of decimals

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

1.  $7.4 - 4.2 =$

2.  $6.5 - 2.3 =$

3.  $8.6 - 1.9 =$

4.  $7.2 - 3.3 =$

5.  $5.1 - 2.4 =$

6.  $6.3 - 2.5 =$

7.  $8.3 - 4.8 =$

8.  $5.2 - 3.9 =$

Now try these:

9.  $0.57 - 0.43 =$

10.  $0.51 - 0.45 =$

11.  $0.62 - 0.36 =$

12.  $0.85 - 0.08 =$

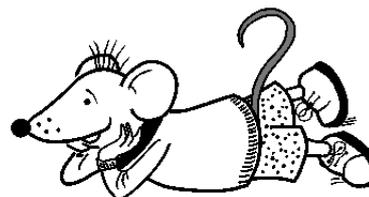
13.  $0.73 - 0.28 =$

14.  $0.88 - 0.29 =$

15.  $0.61 - 0.28 =$

16.  $0.44 - 0.17 =$

How did you do these?  
Do you use different ways for  
different sums, depending on the  
numbers?



### Addition and Subtraction of decimals

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

1.  $7.6 + 4.8 =$

2.  $3.4 + 2.9 =$

3.  $9.4 - 3.6 =$

4.  $6.8 - 4.9 =$

5.   $+ 5.3 = 9.2$

6.   $+ 7.5 = 8.4$

7.   $- 2.5 = 5.7$

8.   $- 5.1 = 3.3$

9.  $6.2 -$    $= 1.4$

10.  $7.5 -$    $= 3.9$

11.  $6.5 -$    $= 2.8$

12.  $9.4 -$    $= 4.9$

You need to think about these next four. Take care!



13.  $0.7 + 0.46 =$

14.  $0.5 + 0.21 =$

15.  $0.7 - 0.43 =$

16.  $0.4 - 0.16 =$

### Addition and Subtraction of decimals

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

1.  $6.7 + 5.8 =$

2.  $4.3 + 1.5 =$

3.  $8.3 - 4.6 =$

4.  $7.7 - 3.8 =$

5.   $+ 4.7 = 6.6$

6.   $+ 5.4 = 9.7$

7.   $- 1.3 = 7.2$

8.   $- 3.8 = 2.9$

9.  $7.4 -$    $= 2.6$

10.  $8.3 -$    $= 4.6$

11.  $8.2 -$    $= 1.5$

12.  $6.3 -$    $= 1.6$

It's not so bad after all - nearly finished now!



13.  $0.6 + 0.33 =$

14.  $0.4 + 0.14 =$

15.  $0.8 - 0.55 =$

16.  $0.6 - 0.35 =$

**Answers****Page 3**

1. 4 003    2. 3 001    3. 2 001    4. 5 001    5. 7 002    6. 6 002    7. 9 002    8. 8 002  
9. 6 002    10. 5 006    11. 7 002    12. 6 001    13. 8 001    14. 7 001    15. 3 004

**Page 4**

1. 4 001    2. 3 001    3. 2 002    4. 5 001    5. 7 006    6. 6 004    7. 9 003    8. 8 002  
9. 6 003    10. 5 003    11. 7 008    12. 6 003    13. 8 001    14. 2 003    15. 7 007

**Page 5**

1. 103    2. 107    3. 23    4. 19    5. 8 009    6. 4 005    7. 3 986    8. 1 994    9. 6 987  
10. 5 997    11. 1 991    12. 2 995    13. 4 010    14. 2 006    15. 993    with explanations.

**Page 6**

1. 9    2. 15    3. 22    4. 15    5. 4 006    6. 5 005    7. 6 991    8. 1 993    9. 4 993  
10. 7 985    11. 3 992    12. 2 995    13. 3 005    14. 2 003    15. 3 988    with explanations.

**Page 7**

1. 5.9    2. 6.9    3. 9.0    4. 8.7    5. 9.0    6. 7.3    7. 8.9    8. 12.3  
9. 0.69    10. 0.49    11. 0.89    12. 0.81    13. 0.90    14. 0.93    15. 1.17    16. 0.91

**Page 8**

1. 8.9    2. 7.2    3. 8.0    4. 8.9    5. 7.0    6. 5.1    7. 4.7    8. 7.1  
9. 0.39    10. 0.71    11. 0.74    12. 0.78    13. 0.93    14. 0.53    15. 0.92    16. 0.91

**Page 9**

1. 3.1    2. 2.1    3. 4.7    4. 4.6    5. 0.9    6. 1.4    7. 2.8    8. 1.9  
9. 0.12    10. 0.03    11. 0.16    12. 0.67    13. 0.19    14. 0.66    15. 0.05    16. 0.45

**Page 10**

1. 3.2    2. 4.2    3. 6.7    4. 3.9    5. 2.7    6. 3.8    7. 3.5    8. 1.3  
9. 0.14    10. 0.06    11. 0.26    12. 0.77    13. 0.45    14. 0.59    15. 0.33    16. 0.27

**Page 11**

1. 12.4    2. 6.3    3. 5.8    4. 1.9    5. 3.9    6. 0.9    7. 8.2    8. 8.4  
9. 4.8    10. 3.6    11. 3.7    12. 4.5    13. 1.16    14. 0.71    15. 0.27    16. 0.24

**Page 12**

1. 12.5    2. 5.8    3. 3.7    4. 3.9    5. 1.9    6. 4.3    7. 8.5    8. 6.7  
9. 4.8    10. 3.7    11. 6.7    12. 4.7    13. 0.93    14. 0.54    15. 0.25    16. 0.25