Year 4 Maths Number Place and Value Workbook


## Home Learning Year 4 Maths Workbook Pack

Year 4 Programme of Study - Number and Place Value

| Statutory Requirements | Worksheet | Page <br> Number | Notes |
| :--- | :--- | :---: | :--- |
| Count in multiples of 6, 7, 9, <br> 25 and 1000 | Counting in 1000s Worksheet <br> Counting in 1000s not from 0 <br> Counting in 6,7 and 9 <br> Worksheet <br> Counting in 25's Worksheet | 4 | 5 |
| Find 1000 more or less than a <br> given number | Adding 1000 <br> Subtracting 1000 | 6 |  |
| Count backwards through 0 to <br> include negative numbers | Counting Backwards Through <br> 0 Using Negative Numbers <br> Worksheet | $10-12$ |  |
| Recognise the place value <br> of each digit in a four-digit <br> number (1000s, 100s, 10s, and <br> $1 s)$ | Place Value Worksheets 4 <br> Digits | 8 |  |
| Identify, represent and <br> estimate numbers using <br> different representations | Estimate Subtraction <br> Calculations Worksheet <br> Estimate Addition Calculations <br> worksheet | 20 | 13 |
| Order and compare numbers <br> beyond 1000 | Place Value Number Sorting <br> Worksheet <br> Ordering and Comparing <br> Numbers Beyond 1000 | 14 |  |
| Represent Numbers Using Base <br> 10 | 18 |  |  |

Year 4 Programme of Study - Number and Place Value

| Statutory Requirements | Worksheet | Page <br> Number | Notes |
| :--- | :--- | :---: | :---: |
|  | Estimating on different number <br> lines worksheet <br> Estimating numbers on a <br> $1-10$ 000 Number Line <br> Worksheet | 21 | 22 |

## Counting in 1000s

Complete the following sequences:

| a) 1000 | 20003000 |  | 5000 |  | 4000 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| b) 9000 | 8000 |  | 6000 |  |  |  |
| c) | 5000 | 60007 | 7000 |  | 9000 |  |
| d) 8000 |  |  | 5000 | 4000 | 3000 |  |
| e) 6000 |  | 8000 | 9000 |  | 11000 |  |
| f) | 11000 | 10000 |  |  | 8000 | 7000 |
| g) 16000 | 15000 |  | 13000 |  |  | 11000 |
| h) 19000 |  |  | 22000 |  | 23000 | 24000 |
| i) | 27000 |  | - 28000 |  | 29000 | 30000 |
| j) 76000 | 75000 | - |  | - | 72000 | 71000 |

Challenge: Can you count on in thousands from these numbers?
k) 187000 $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
D) 462000 $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
m) 698000 $\qquad$
Can you complete these?
n) $\qquad$
$\qquad$ 345000 $\qquad$
o) $\qquad$ $\square$ 501000
p) $\qquad$ $\square$ $\qquad$ 970000

## Counting in 1000s Not From 0

Complete the following sequences:
a) $1013 \quad 2013 \quad 3013$ $\qquad$ 5013
b)
b) $10472 \quad 9472$ 7472 5472
$\qquad$ 5706

67067706

- 9706
d) 12293 $\qquad$
$\qquad$ 92938293
7293
e) 6038 $\qquad$ 80389038 $\qquad$ 11038


11720
10720
8720
7720
g) $26671 \quad 25671$
h) 19337 $\qquad$

- 23671 $\qquad$ 21671
i) $\qquad$
$\qquad$ 47405
48405
49405
50405
j) 66049

65049
2233723337
24337
$\underline{\square}$

> 1

62049
61049

Challenge: can you count on in thousands from these numbers?
k) 104892
D) 386315 $\qquad$
$\qquad$
$\qquad$
$\qquad$
m) 740012 $\qquad$
$\qquad$
$\qquad$
$\qquad$
Can you complete these?
n) $\qquad$
$\qquad$ 290891
o) $\qquad$
$\qquad$
$\qquad$
$\qquad$ 601098
p) $\qquad$ $\underline{\square}$ $\qquad$
$\qquad$
$\qquad$ 930660

## Counting in 6,7 and 9

Complete the following sequences:


Continue the following sequences:
k) 354147
D) 21120
m) 404754 $\qquad$
n) 100106112
o) 99106113 $\qquad$ _ $\qquad$ - $\qquad$ -----
p) 300291282 $\qquad$
q) 172166160 $\qquad$
r) 314049 $\qquad$ -
s) 867972 $\qquad$
$\qquad$ ___ _ _ --_ -_
p) 300291282 ———_ $\qquad$ _-_ -_ - - -
$\qquad$


Choose a starting number and count in $6 \mathrm{~s}, 7 \mathrm{~s}$ and 9 s from that number. What is the difference between each number you end up at? Can you explain why?

## Counting in 25s Worksheet

Aim - I can count in 25 s from any given number.
Can you complete these sequences by counting in 25 s?
1.

| 0 | 25 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |

2. 

| 175 |  |  | 250 |  |
| :--- | :--- | :--- | :--- | :--- |

3. 

| 550 | 575 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |

4. 

|  |  |  |  | 975 |
| :--- | :--- | :--- | :--- | :--- |

5. 

|  |  | 725 |  |  |
| :--- | :--- | :--- | :--- | :--- |

6. 

| 725 |  |  |  |
| :--- | :--- | :--- | :--- |

Look at these sequences which start from a number other than 0 but still go up in 25 s . In each line one of the numbers is wrong. Can you circle it? The first one is done for you.
7.

| 7. | 55 | 70 | 105 | 130 | 155 | 180 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 8. | 16 | 41 | 56 | 91 | 116 | 141 |
| 9. | 115 | 140 | 165 | 190 | 212 | 240 |
| 10. | 499 | 524 | 549 | 574 | 594 | 624 |
| 11. | 879 | 904 | 939 | 954 | 979 | 1004 |
|  |  |  |  |  |  |  |
| 12. | 1042 | 1076 | 1101 | 1126 | 1151 | 1176 |



## Add 1000 to the following numbers

1. $2398+1000=\square$
2. $11756+1000=$
3. $14947+1000=$ $\square$
4. $4829+1000=$ $\square$
5. $8023+1000=$ $\square$ 18. $25902+1000=$ $\square$
6. $3820+1000=$ $\square$ 19. $49023+1000=$ $\square$
7. $7822+1000=$ $\square$ 20. $100456+1000=$ $\square$
8. $3419+1000=\square$
9. $134982+1000=$ $\square$
10. $6729+1000=\square$
11. $249305+1000=$

$\square$ 23. $56983+1000=$ $\square$
12. $1009+1000=\square$
13. $701034+1000=\square$
14. $345+1000=\square$
15. $38382+1000=\square$

16. $563902+1000=\square$
17. $9017+1000$

18. $79826+1000=\square$
19. $6730+1000=\square$
20. $399027+1000=\square$
21. $1193+1000=$

22. $50231+1000=\square$
23. $4508+1000=$


## Challenge

Can you add 1001, 1010 or 1100 to some of the questions? What about 10000 ?

## Subtract 1000 from the following numbers


twinkl

## Counting Backwards Through 0 Using Negative Numbers Worksheet

Aim - I can count backwards through 0 including negative numbers. Counting backwards can be useful - especially if you want to make a rocket take off! 10, $9,8,7,6,5,4,3,2,1 \quad$ BLAST OFF!

BUT what happens when we are counting backwards and we get to ' 0 '?


We keep going using negative numbers.

```
-20-19-18-17-16-15-14-13-12-11-10 -9 --8 -7 -6 -5 -4 -3 -2 -1 0 0
```

    | ل | ل |
    A. Use the number lines to help you count backwards through 0 . Start on the number given and draw the right number of jumps backwards until you have your answer.

1. From 5, count back 7.
$-20-19-18-17-16-15-14-13-12-11-10-9 \quad-8 \quad-7 \quad-6$ |

Answer $=\square$
2. From 8 , count back 12.



Answer $=\square$
3. From 7, count back 15.



Answer $=\square$
4. From 2, count back 9.



Answer $=\square$
5. From 12, count back 22.
 L

$$
\text { Answer }=\square
$$

B. These counting back tasks can be written as sums e.g. $7-8.7$ is the number you start on and 8 is the number of jumps you count backwards. $7-8=-1$

Use the number line below to jump with your finger to count backwards and work out the answers to the sums.


1. $6-12=\square$
2. $5-10=$ $\square$
3. $7-15=$

4. $16-17=$ $\square$
5. $11-20=$

6. $1-7=$ $\square$
7. $6-11=$

8. $19-30=$ $\square$
C. Being able to count back through 0 can help you understand temperature changes. Imagine a thermometer is a number line on its side. Use these thermometers for drawing jumps on to help you answer the questions on the next page.


When the temperature drops, you can count backwards on your number line/thermometer and calculate the new temperature.

1. The temperature is $7^{\circ} \mathrm{C}$ then it falls by $9^{\circ} \mathrm{C}$. What is the new temperature?

2. At six o'clock in the evening the temperature is $11^{\circ} \mathrm{C}$. It falls by $14^{\circ} \mathrm{C}$ at night. What is the new temperature?
$\square$
3. During the day the temperature is $1^{\circ} \mathrm{C}$, by the evening it has fallen by $5^{\circ} \mathrm{C}$. What is the new temperature?
$\square$
4. The temperature is $3^{\circ} \mathrm{C}$ then it falls by $12^{\circ} \mathrm{C}$ the next day. What is the new temperature?

5. At nine o'clock in the morning the temperature is $5^{\circ} \mathrm{C}$. It falls by $9^{\circ} \mathrm{C}$ at night. What is the new temperature?
$\square$

Circle the numbers that have a 6 in the ones place.

$$
89063848 \quad 2106 \quad 16829863 \quad 8296 \quad 62659273
$$

Circle the numbers that have a 5 in the tens place.

$$
\begin{array}{llllllll}
7653 & 7902 & 5623 & 7855 & 6539 & 7205 & 9058 & 1251
\end{array}
$$

Circle the numbers that have a 3 in the hundreds place.

$$
\begin{array}{llllllll}
7983 & 3379 & 1925 & 1393 & 6793 & 2833 & 9389 & 7832
\end{array}
$$

Circle the numbers that have a 7 in the thousands place.

$$
89077293679844878974879777893928
$$

Circle the numbers that have a 1 in the ones place.

$$
\begin{array}{llllllll}
6451 & 9803 & 7751 & 6512 & 7631 & 1728 & 3183 & 8911
\end{array}
$$

Circle the numbers that have an 8 in the tens place.

$$
\begin{array}{llllllll}
3893 & 9800 & 1280 & 2378 & 1189 & 3465 & 4829 & 7381
\end{array}
$$

Circle the numbers that have a 7 in the hundreds place.

$$
17874578992737037289379920977770
$$

Circle the numbers that have a 1 in the thousands place.

$$
87191287314458617612412219201123
$$

Place Value Number Sorting Worksheet
Fill in the spaces below with the numbers in order from smallest to largest.
6592


## Comparing and Ordering Numbers Beyond 1000

I can compare and order numbers beyond 1000.

Comparing numbers to decide which are bigger and which are smaller requires a close look at the value of each digit. The best way to compare the size of numbers directly is to use a place value chart to inspect them. Consider the following set of numbers -999, 1001, 1099, 9001, 10001

It could be possible to get mixed up when ordering these but with a place value chart there is no confusion - let's put the numbers into this place value chart:

| Ten <br> Thousands | Thousands | Hundreds | Tens | Ones |
| :--- | :--- | :--- | :--- | :--- |
|  |  | 9 | 9 | 9 |
|  | 1 | 0 | 0 | 1 |
|  | 1 | 0 | 9 | 1001 |
|  | 9 | 0 | 0 | 9 |



As a digit is placed further to the left on the place value chart, its value increases. So when comparing how big numbers are, it is always worth starting at the left (largest) and moving to the right (smallest).

So when comparing, if a number has digits further to the left of the grid than the others, $(10001)$ then it is obviously the largest. However, if more than one number has a digit in the same column, then check to see which has the greatest value (this will be the bigger number).

If both numbers have same value digit in the same column, then you keep looking to the right until you find a difference (1099 is bigger than 1001). Using this system will help to accurately order numbers from largest to smallest.
A. Write each of these numbers into the place value charts and then order them from highest to lowest. Cross them out when you have written them in to make your task easier!
$\begin{array}{lllll}\text { 1. } 856 & 5001 & 4999 & 949 & 4959\end{array}$

| Ten Thousands | Thousands | Hundreds | Tens | Ones |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |


| Order from <br> high to low |
| :--- |
|  |
|  |
|  |
|  |

2. 35375

7357
735
5735
5573

| Ten Thousands | Thousands | Hundreds | Tens | Ones |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |


B. Can you rewrite these numbers in order from highest to lowest? Sketch a place value chart on a whiteboard or on paper to help you if you need it.

1. 2632

6366
6332
999

2. 9001

999
4526
10001
1009
$\square$
$\square$

C. Compare the size of the following numbers and insert one of these symbols $<>$ to make the number statement read correctly. Sketching a mini place value chart may help you with these. The first one has been done for you.
1.

| 817 | $>$ | 781 |
| :---: | :---: | :---: |
| 6205 |  | 6208 |
| 8574 |  | 7548 |
| 4274 |  | 7442 |
| 7891 |  | 10000 |
| 9999 |  |  |


(atz7

|  <br>  | ¿OOGL дnoqo fo дамsud ud an 6 <br>  | $\begin{gathered} \angle 9 乙 \vdash+9 b \\ 0 \downharpoonright 8 \varepsilon+9 \varsigma \varepsilon \downarrow \\ b 8 \downarrow+10 \varepsilon ฤ \\ 99 乙 \varepsilon+0 b 乙 乙 \end{gathered}$ <br> ¿OOG力 дnoqo fo дамsud uд ал 6 <br>  | $\begin{gathered} 89 乙 乙+80 b \\ 9 し 0 乙+700 \downarrow \\ 8 b G+00 b 乙 \\ \text { カ乙レレ+ LEL乙 } \end{gathered}$ <br> ¿OOGE ฉnoqo fo дамsud uд an！ 6 <br>  | $\begin{gathered} \angle 8+\varsigma 0 \angle l \\ l \varepsilon \angle Z+\downarrow 9 乙 \\ \varsigma \varepsilon \varepsilon \downarrow+\varepsilon 8 \downarrow l \\ \angle l 乙 Z+\varepsilon ゅ 乙 l \end{gathered}$ <br>  <br>  |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 09 \downharpoonright \varepsilon+\varsigma ゅ \varepsilon 乙 \\ & 008 \downarrow+\varsigma 80 Z \\ & 0 \varsigma ゅ \varepsilon+0 \varsigma \varepsilon \downarrow \\ & \varsigma \angle 9 乙+\varsigma ゅ \varepsilon 乙 \end{aligned}$ <br>  <br>  | ¿000t дnoqд fo дамsud uд an！ 6 <br>  | $\begin{gathered} 00 Z Z+0 G \angle \\ 0 G \angle L+G Z O L \\ 09 b+0 G 0 Z \\ G \angle O L+00 G L \end{gathered}$ <br> ¿000ع 子noqд fo дамsud uд an 6 <br>  | $\begin{aligned} & 00 L+00 \varepsilon l \\ & 00 b l+00 \downarrow \\ & 00 乙+009 l \end{aligned}$ <br> ¿OOOZ 子noqд fo дамsud un an！ 6 <br>  | ¿OOGL moqo fo גamsun ud aṇ！ 6 <br>  |
|  <br>  | $\begin{aligned} & \angle b G+G 0 \sqcap \\ & \angle 00 l+Z 8 \\ & 8 \angle b+\varepsilon \mapsto l \\ & 9 b 乙+\angle 08 \end{aligned}$ <br> ¿OOOL $7 n o q d$ fo дamsud ud aṇ 6 <br>  | $\begin{aligned} & \angle \varsigma \varepsilon+\varsigma \varepsilon \sqcap \\ & \varsigma 乙 \varepsilon+\angle b 乙 \\ & L \varepsilon 乙+\angle 乙 \vdash \\ & \varsigma \varepsilon 乙+乙\llcorner\angle \end{aligned}$ <br>  <br>  | $\begin{aligned} & \angle l \varepsilon+l \varepsilon l \\ & \varepsilon b G+\angle l l \\ & b 乙 \tau+b l \varepsilon \\ & l \varepsilon 乙+\tau \angle \varepsilon \end{aligned}$ <br>  <br>  | ¿OOG ユnogo fo дамsud ud anı 6 <br>  |



| ¿OOOG mnoqo fo дамsun uv aṇ 6 <br>  | ¿OOSE 子noqd fo дамsud un an！ 6 <br>  |  <br>  |  <br>  |  <br>  |
| :---: | :---: | :---: | :---: | :---: |
|  <br>  | ¿OOb 子noqo fo дamsud un anı 6 <br>  | ¿OGL moqo fo дamsud un anı <br>  | ¿OOL nnogo fo дамsud ud anı 6 <br>  | ¿009 子noqd fo дамsud ud an suoו̣םן |
| ¿OOS znoqn fo дamsud un an＠ <br>  |  <br>  |  <br>  | ¿OOZ ユnogo fo дамsud ud an！ 6 <br>  |  <br>  |



Estimating on Different Number Lines
a) 8107

5000
b) 7213

7000
c) 3698

| 3000 | 5000 |
| :--- | :--- |
| d) 2978 |  |

1000
e) 3671

| 2000 | 5000 |
| :---: | :---: |
| f) 6014 |  |
| L |  |
| 5000 | 7000 |
| g) 5978 |  |
| L |  |
| 4500 | 6500 |
| h) 8136 |  |


|  |  |
| :--- | :--- |
| 7500 | 9000 |

i) 3127
$\square$
3000
3500

Estimating numbers on a 0-10000 Number Line
a) 4159


10000
b) 7213

c) 9887

d) 2003

|  |  |
| :--- | :--- |
| 0 | 10000 |
| e) 3401 |  |
| 0 | 10000 |

f) 6272

g) 91

| $\square$ |  |
| :--- | :--- |
| 0 | 10000 |

h) 8104

| $\square$ |  |
| :--- | :--- |
| 0 | 10000 |

How to Round a Number Worksheet

| 39 | nearest 1000 | 3400 |
| :---: | :---: | :---: |
| 65 | nearest 10 | 70 |
| 74 | nearest 100 | 100 |
| 145 | nearest 10 | 700 |
| 736 | nearest 10 | 40 |
| 1902 | nearest 100 | 1900 |
| 3419 | nearest 100 | 10000 |
| 9567 | nearest 100 | 150 |

## Challenge

Make your own for a friend to check. Some boxes have been completed or partly completed already. You need to include the arrows.

|  |
| :--- |
| 89 |
|  |
|  |
| 492 |
|  | | nearest |
| :--- |
| nearest |
| nearest 10 |
| nearest |
| nearest 100 |
| nearest |
| nearest 1000 |


|  |
| :--- |
|  |
|  |
|  |
|  |
|  |
|  |

1. A supermarket sells 187 cartons of yoghurt a week. How many cartons is this to the nearest 10 and nearest 100 ?

2. There are 35245 spectators at a football match.

How many is this to the nearest 10 , nearest 100 and nearest 1000 ?

3. A newspaper reports that about 12400 people attended a parade.

How is this rounded and what is the range of the precise attendance?
4. There are 12876 adult tickets and 5621 child tickets sold for a concert. To the nearest 10 and nearest 100, how many tickets are sold altogether?

5. A shop has 2349 tins of tomatoes in stock. It sells 782 in a week. To the nearest 10, how many will be left?
6. An office receives about 35 letters per day.


To the nearest 10, how many letters does it receive in a working week ( 5 days)?

7. A swimming pool gets about 120 swimmers between Monday and Friday and about 350 swimmers over the weekend. To the nearest 100, how many swimmers does the pool get over the whole week?
8. A lorry driver travels about 370 miles per day for 6 days per week.


To the nearest 100 and 1000, how many miles does the driver travel each week?


Challenge


What happens if you round the numbers in the questions, then calculate the answers? $\Theta$ $\omega$

## Rounding to the Nearest 10 Worksheet 1

Write the tens either side of the given number and mark it approximately on the number line. Then circle the 10 to which the given number is closer.

c) 34

d) 89

e) 12

h) 183

m) 2692

n) 8002


## Rounding to the Nearest 10 Worksheet 2

Round the following numbers to the nearest 10.

| $44 \longrightarrow$ | $95 \longrightarrow$ | $1983 \longrightarrow$ | $10783 \rightarrow$ |
| :---: | :---: | :---: | :---: |
| $78 \longrightarrow$ | $123 \longrightarrow$ | $5623 \longrightarrow$ | $19878 \rightarrow$ |
| $16 \longrightarrow$ | $176 \longrightarrow$ | $9012 \longrightarrow$ | $28003 \rightarrow$ |
| $3 \longrightarrow$ | $299 \longrightarrow$ | $7995 \longrightarrow$ | $37997 \longrightarrow$ |
| $89 \longrightarrow$ | $364 \longrightarrow$ | $6003 \longrightarrow$ | $191012 \rightarrow$ |
| $32 \longrightarrow$ | $782 \longrightarrow$ | $5786 \longrightarrow$ | $398908 \longrightarrow$ |

Round the following numbers to the nearest 10 km .

| Places | Distance | to the nearest 10 km |
| :--- | :--- | :--- |
| Sheffield to London | 257 km |  |
| Liverpool to Birmingham | 141 km |  |
| Manchester to Bristol | 113 km |  |
| Norwich to Plymouth | 506 km |  |
| Leeds to Swansea | 339 km |  |
| Blackpool to York | 144 km |  |
| Newcastle to Brighton | 528 km |  |
| Oxford to Exeter | 221 km |  |
| Portsmouth to Carlisle | 525 km |  |

Rounding to the Nearest 100 Worksheet 1

c) 167

e) 450

d) 502

g) 418

h) 631

k) 3950

D) 4781

m) 12456

n) 34780


## Rounding to the Nearest 100 Worksheet 2

Round the following numbers to the nearest 100.

| $341 \longrightarrow$ | $83 \longrightarrow$ | $3009 \longrightarrow$ | $67430 \rightarrow$ |
| :--- | :--- | :--- | :--- |
| $789 \longrightarrow$ | $560 \longrightarrow$ | $4762 \longrightarrow$ | $109052 \rightarrow$ |
| $145 \longrightarrow$ | $932 \longrightarrow$ | $8420 \longrightarrow$ | $279973 \rightarrow$ |
| $35 \longrightarrow$ | $895 \longrightarrow$ | $9562 \longrightarrow$ | $300013 \rightarrow$ |
| $676 \longrightarrow$ | $1804 \longrightarrow$ | $12745 \longrightarrow$ | $413413 \rightarrow$ |
| $423 \longrightarrow$ | $2398 \longrightarrow$ | $34562 \longrightarrow$ |  |

Round the following numbers to the nearest 100km.

| Places | Distance | to the nearest 100 km |
| :--- | :--- | :--- |
| Budapest to Zagreb | 345 km |  |
| Milan to Barcelona | 824 km |  |
| Bucharest to Sarajevo | 796 km |  |
| London to Berlin | 1050 km |  |
| Vienna to Amsterdam | 1069 km |  |
| Warsaw to Geneva | 1427 km |  |
| Munich to Madrid | 1759 km |  |
| Istanbul to The Haugue | 2593 km |  |
| Paris to Moscow | 2762 km |  |

Rounding to the Nearest 1000 Worksheet 1

d) 4562

h) 46545


The Nearest 1000

Round the following numbers to the nearest 1000.

| 1804 | $\longrightarrow$ | 12532 | $\longrightarrow$ | 190870 | $\longrightarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2398 | $\longrightarrow$ | 24665 | $\longrightarrow$ | 207207 | $\longrightarrow$ |
| 7804 | $\longrightarrow$ | 31500 | $\longrightarrow$ | 345828 | $\longrightarrow$ |
| 2398 | $\longrightarrow$ | 45838 | $\longrightarrow$ | 199666 | $\longrightarrow$ |
| 2502 | $\rightarrow$ | 66112 | $\rightarrow$ | 451727 | $\longrightarrow$ |
| 2398 | $\rightarrow$ | 71008 | $\rightarrow$ | 999700 | $\longrightarrow$ |

Round the following numbers to the nearest 1000 km .

| Places | Distance | to the nearest 1000 km |
| :--- | :--- | :--- |
| London to New York | 5540 km |  |
| Rio De Janeiro to Madrid | 8140 km |  |
| Cape Town to Rome | 8450 km |  |
| Perth to Sydney | 3300 km |  |
| Beijing to Washington | 11200 km |  |
| Boston to Delhi | 11500 km |  |
| Buenos Aires to Berlin | 11900 km |  |
| Christchurch to Paris | 19100 km |  |
| Earth to the Moon | 384403 km |  |


|  <br>  <br>  <br>  |  <br>  <br>  <br>  <br>  |  |
| :---: | :---: | :---: |
|  <br>  <br>  amos 10 afos him uado of paru I (G |  <br> ’aquии <br>  <br>  <br>  |  |
|  <br> ¿ $\mathrm{CS98}$ Gu!̣n ıaqunu <br>  <br>  |  <br> גəqunu นวла 7 тəןpous <br>  <br>  |  |

I can convert between numbers and Roman numerals.


Numbers other than those above are made by creating simple sums e.g.


| Number | Sum | Roman Numeral |
| :--- | :--- | :--- |
| 12 | $10+2$ | XII |
| 7 | $5+2$ | VII |

When adding numerals to make a number, the extra digit is placed to the right of the largest number e.g.

| 13 | $10+3$ | XIII |
| :--- | :--- | :--- |

To stop numerals getting too big, only three of the same value are allowed in a row. To help with this we can show a number by 'subtracting' a numeral e.g.

| 9 | 1 less than 10 | IX |
| :--- | :--- | :--- |

The letter being removed goes before the larger number. There is only ever one letter subtracted.

Work through these further examples to help you understand more fully;

| Number | Sum | Roman Numeral |
| :--- | :--- | :--- |
| 8 | $5+3$ | VIII |
| 19 | $10+9$ | XIX |
| 43 | $40+3$ | XLIII |
| 90 | $100-10$ | XC |

1. Can you write the numbers from 1-10 to help you with the questions to follow?
1 = $\square$
$\square$
$\square$

$5=$

$6=$ $\square$
$7=\square$
$\square$
$\square$
$10=\square$
2. Try these...

| Number | Sum | Roman Numeral |
| :--- | :--- | :--- |
| a. 26 |  |  |
| b. 17 |  |  |
| c. 29 |  |  |
| d. 30 |  |  |

3. Now try these...
a. $15=\square$
b. $21=\square$
c. $26=$

d. $33=$

e. $35=$

f. $44=$

g. $49=$

h. $50=$ $\qquad$
4. A little bit harder...
a. $70=$

d. $89=\square$
b. $80=$

e. $90=$
e. $90=$
$\square$
c. $83=$

f. $100=$

5. Final challenges...

- Can you convert today's date into Roman numerals? $\qquad$
- Can you convert the year (e.g. 2015) into Roman numerals?
100 ..... LI
29
XCIX
33
C
94XXVI
75
LXVIII
26
XLVIII
51
XXIX
48
XXXIII68
XCIV
99


