



Year 5 Maths Distance Teaching and Learning

Week beginning: 11th May 2020

Lesson 4		
Learning Intention: WALT: mentally subtract using the nearest 10 100 1000 10,000 then adjust (use the adjusting method)	Key Vocabulary: mentally mental subtract nearest rounding adjust	What you will need: Paper (squared preferably) pencil ruler Year 5 Maths Week 4 video3
Starter		
<p>Please use Timestable Rockstars and do a Studio game for at least one minute.</p> <p>If a GIG is available then do it. Remember that the GIG is only available once you have completed enough games (or when you first ever log in) and your score and speed has improved enough.</p> <p>Here is the website link. If you are viewing this online you should be able to click on the link or copy and paste to the website.</p> <p>https://play.ttrockstars.com/auth/school/student/84789</p> <p>Your login is the first 3 letters of you first name and the first 3 letters of your surname e.g. Jack Smith would have the login jacsmi</p> <p>The password is Welcome1 -This is case sensitive (you need to use a capital W)</p> <p>You might like to record your scores.</p> <p>Once you gain enough points you can start to change the clothes and accessories of your avatar. Feel free to put pictures of your avatar in your Maths book whenever you like.</p>		

Main Teaching

Today we will be using a similar method to yesterday but this time involving subtraction.

Like yesterday this method works best when a number in the subtraction is very close to a multiple of 10 100 1000 10,000 etc.

So $456 - 299$ would be a good calculation to use it on because we can adjust the 299 into 300 by adding 1 then adjusting the answer by one.

However a calculation such as $456 - 378$ would be harder to do as neither number is very close to a multiple of 100. Although, 378 is close to 380 (a multiple of 10) but it still would not make it much easier so it would be better to use other mental or formal methods.

So let's look at an example:

$$53 - 29 =$$

We can adjust the 29 to 30 (multiple of 10) by adding on 1

$$\text{This will give us } 53 - 30 = 23$$

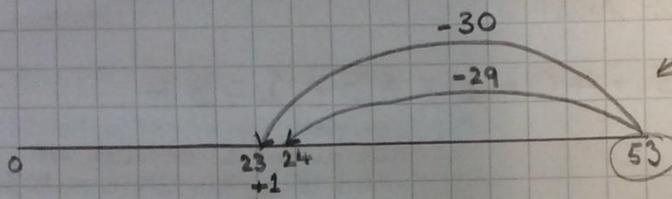
However we will have to adjust the answer. **UNLIKE** the addition method we won't now subtract 1 from the answer. **NO**, instead we will add 1 on to the answer.

Look at the number line to help you understand why we do this.

Week 4 Lesson 4

Example 1

$$53 - 29 = (53 - 30) + 1$$



By making the 29 larger we can see that the answer would be smaller so we have to add the 1 to make it correct.

So this can now be written as:

$$\begin{aligned} 53 - 29 &= (53 - 30) + 1 \\ &= 23 + 1 \\ &= 24 \end{aligned}$$

Example 2

$$65 - 18 =$$

Have a go by adjusting the 18 to 20

Did you get this?

$$\begin{aligned} 65 - 18 &= (65 - 20) + 2 \\ &= 45 + 2 \\ &= 47 \end{aligned}$$

Example 3

$$456 - 299$$

Have a go by adjusting the 299

Did you get this?

$$\begin{aligned} 456 - 299 &= (456 - 300) + 1 \\ &= 156 + 1 \\ &= 157 \end{aligned}$$

Independent Tasks

Challenge 1

Use the adjusting method to solve these problems. There are 2 problems where you would not use the adjusting method. Make sure you avoid those 2.

Example of layout:

$$73 - 18$$

$$\begin{aligned} 73 - 18 &= (73 - 20) + 2 \\ &= 53 + 2 \\ &= 55 \end{aligned}$$

a) $65 - 19 =$

b) $74 - 28 =$

c) $83 - 54 =$

d) $90 - 39 =$

e) $93 - 58 =$

f) $128 - 17 =$

g) $153 - 74 =$

Challenge 2

Use the adjusting method to solve these problems. There are 2 problems where you would not use the adjusting method. Make sure you avoid those 2.

Example of layout:

$$273 - 198$$

$$273 - 198 = (273 - 200) + 2$$

$$= 73 + 2$$

$$= 75$$

a) $265 - 19 =$

b) $374 - 198 =$

c) $983 - 454 =$

d) $900 - 399 =$

e) $223 - 58 =$

f) $4,280 - 999 =$

g) $23,153 - 874 =$

Challenge 3

a) $457 - ? = (457 - 200) + 1$

$$= ? + 1$$

$$= 258$$

b) $? - 398 = (? - 400) + 2$

$$= 500 + 2$$

$$= 502$$

c) $5764 - ? = (5764 - 3000) + ?$

$$= 2764 + ?$$

$$= 2767$$

d) $99,999 - ? = (99,999 - ?) + ?$

$$= ? + ?$$

$$= 80,003$$

Challenge X

Rank the activities in Challenge 3 in order of how difficult you found them.

Now write an explanation for how you solved the trickiest one.

Review

Can you spot the mistake?

$$567 - 498 = (567 - 500) + 1$$

$$= 67 + 1$$

$$= 68$$



Mark Scheme – Lesson 1

Independent Tasks
Challenge 1
Use the adjusting method to solve these problems. There are 2 problems where you won't use the adjusting method. Make sure you avoid those 2. Example of layout:
73 - 18 $73 - 18 = (73 - 20) + 2$ $= 53 + 2$ $= 55$
a) $65 - 19 = (65 - 20) + 1$ $= 45 + 1$ $= 46$
b) $74 - 28 = (74 - 30) + 2$ $= 44 + 2$ $= 46$
c) $83 - 54 =$ You probably wouldn't use adjusting as other methods would be quicker and easier.
d) $90 - 39 = (90 - 40) + 1$ $= 50 + 1$ $= 51$
e) $93 - 58 = (93 - 60) + 2$ $= 33 + 2$ $= 35$
f) $128 - 17 = (128 - 20) + 3$ $= 108 + 3$ $= 111$
g) $153 - 74 =$ You probably wouldn't use this method.
Challenge 2
Use the adjusting method to solve these problems. There are 2 problems where you won't use the adjusting method. Make sure you avoid those 2. Example of layout:
273 - 198 $273 - 198 = (273 - 200) + 2$ $= 73 + 2$ $= 75$
h) $265 - 19 = (265 - 20) + 1$

$$=245+1$$

$$=246$$

i) $374 - 198 = (374 - 200) + 2$
 $= 374 + 2$
 $= 376$

j) $983 - 454 =$ You probably wouldn't use adjusting as other methods would be quicker and easier

k) $900 - 399 = (900 - 400) + 1$
 $= 500 + 1$
 $= 501$

l) $223 - 58 = (223 - 60) + 2$
 $= 163 + 2$
 $= 165$

m) $4,280 - 999 = (4,280 - 1000) + 1$
 $= 3,180 + 1$
 $= 3,181$

n) $23,153 - 874 =$ You probably wouldn't use this method.

Challenge 3

Fill in the missing numbers

$$457 - 199 = (457 - 200) + 1$$

$$= 257 + 1$$

$$= 258$$

$$900 - 398 = (900 - 400) + 2$$

$$= 500 + 2$$

$$= 502$$

$$5764 - 2997 = (5764 - 3000) + 3$$

$$= 2764 + 3$$

$$= 2767$$

$$99,999 - 19,996 = (99,999 - 20,000) + 4$$

$$= 79,999 + 4$$

$$= 80,003$$

Challenge X

It is your own personal answer. You might like to read it to an adult and see if they understand your explanation. If they do well done and give yourself a tick.

Review

$$567 - 498 = (567 - 500) + 1$$

It should be +2 as you had to adjust the 498 by 2 not 1 to make 500

$$= 67 + 1$$

should be +2

$$= 68$$

should be 69

