Week 15, Day 1

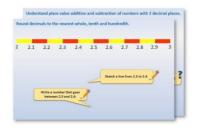
Revise column addition of whole numbers

Each day covers one maths topic. It should take you about 1 hour or just a little more.

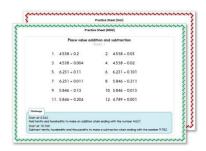
1. If possible, watch the **PowerPoint presentation** with a teacher or another grown-up.



OR start by carefully reading through the **Learning Reminders**.



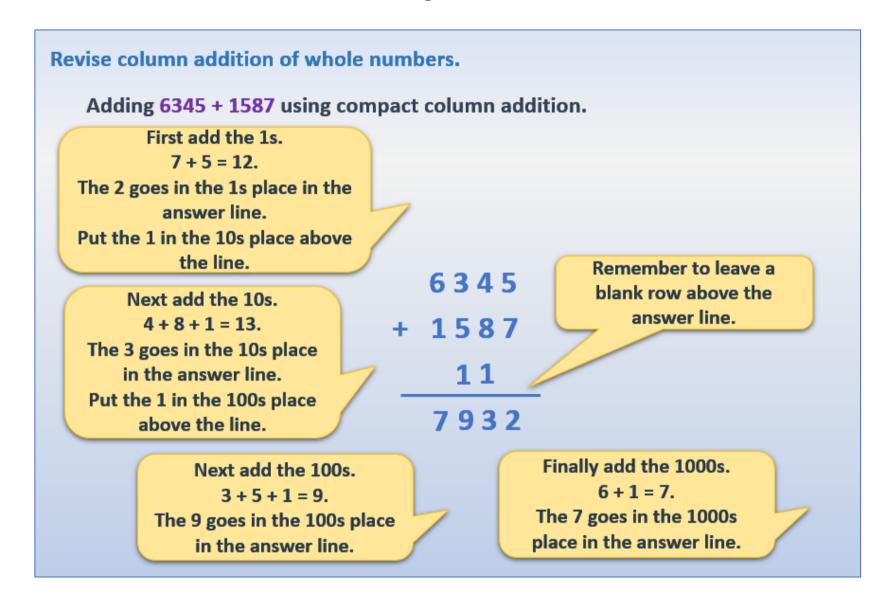
Tackle the questions on the Practice Sheet.
 There might be a choice of either Mild (easier) or Hot (harder)!
 Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at A Bit Stuck?



4. Think you've cracked it? Whizzed through the Practice Sheets? Have a go at the **Investigation**...



Revise column addition of whole numbers.

Adding 45,782 + 52,476 is just the same but with an extra digit!

First add the 1s.

$$2 + 6 = 8$$
.

The 8 goes in the 1s place in the answer line.

Next add the 10s.

$$8 + 7 = 15$$
.

The 5 goes in the 10s place in the answer line.

Put the 1 in the 100s place above the line.

Next add the 100s.

$$7 + 4 + 1 = 12$$
.

The 2 goes in the 100s place in the answer line.

Put the 1 in the 1000s place above the line.

45782

+ 52476

11

98258

Next add the 1000s.

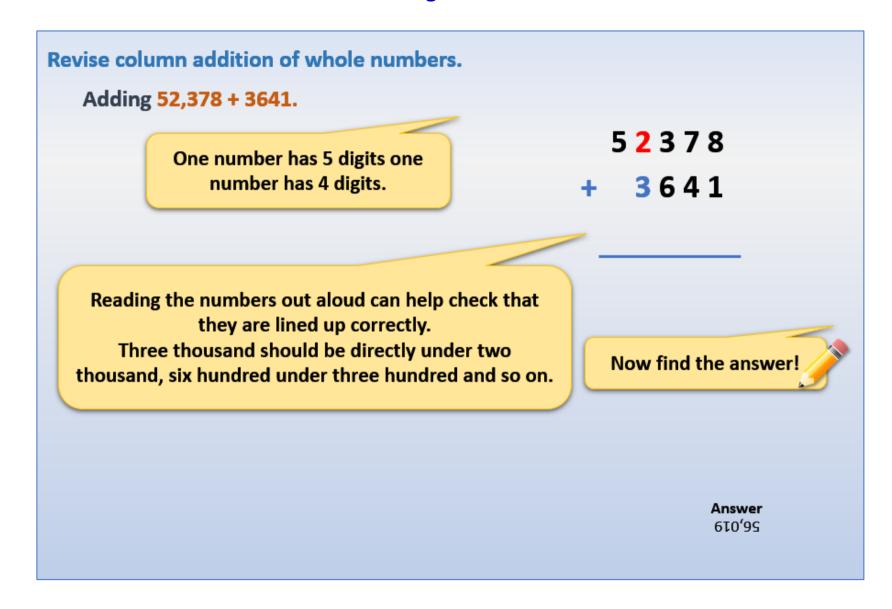
$$5+2+1=8$$
.

The 8 goes in the 1000s place in the answer line.

Finally add the 10,000s.

$$4 + 5 = 9$$
.

The 9 goes in the 10,000s place in the answer line.





Adding 4789 + 2998

Sometimes it is quicker to use a mental method to add.

2998 is very close to 3000.

We can add 3000 to 4789: 4789 + 3000 = 7789. As 3000 is 2 more than 2998 subtract 2 to compensate: 7789 - 2 = 7787.

Look for other examples like this in today's activities.

Practice Sheet Mild Adding 3-digit and 4-digit numbers

Answer each question using compact column addition.

But, look out for one which would be quicker to calculate mentally.

$$1. \quad 3575 + 2718$$

$$5. 4578 + 234$$

$$6. 8482 + 573$$

$$3. \quad 4289 + 245$$

$$7. 7458 + 634$$

$$8. 5678 + 3781$$

Challenge

Write two additions with answers between 5000 and 10,000 where there are no 2s or 3s in any of the numbers.

Practice Sheet Hot

Adding 4-digit and 5-digit numbers

Answer each question using compact column addition.

But, look out for one which would be quicker to calculate mentally.

$$3. \qquad 34{,}578 + 26{,}284$$

$$8. 34,784 + 3997$$

$$4. 74,286 + 52,153$$

Challenge

Write two additions with answers between 20,000 and 30,000 where there are no zeros or fives in any of the numbers!

Practice Sheets Answers

Adding 3-digit and 4-digit numbers (mild)

- 1. 3575 + 2718 = 6293
- 2. 5671 + 1482 = **7153**
- 4289 + 245 = 4534
- 4. 6582 + 1998 = 8580 quicker to work out mentally
- 5. 4578 + 234 = 4812
- 6. 8482 + 573 = 9055
- 7. 7458 + 634 = 8092
- 8. 5678 + 3781 = 9459

Challenge

Write two additions with answers between 5000 and 10,000 where there are no 2s or 3s in any of the numbers.

e.g. 4061 + 4694 = 8755

Adding 4-digit and 5-digit numbers (hot)

- 1. 63,789 + 24,845 = 88,634
- 2. 27.045 + 16.839 = **43.884**
- 3. 34,578 + 26,284 = 60,862
- 4. 74,286 + 52,153 = 126,439
- 5. 58,482 + 34,619 = **93**,101
- 6. 45,782 + 2845 = 48,627
- 7. 28,341 + 5294 = 33,635
- 8. 34,784 + 3997 = 38,781 quicker to work out mentally
- 9. 72,458 + 8725 = 81,183
- 10. 56,794 + 7537 = 64,331

Challenge

Write two additions with answers between 20,000 and 30,000 where there are no zeros or fives in any of the numbers!

e.g. 11,226 + 8393 = 19,619

A Bit Stuck? Addition mission

Work in pairs

Things you will need:

- · Practice sheet (see next page)
- A pencil



What to do:

- Discuss and predict each addition together.
 Write your answers on your own sheets. Use the 'expanded' addition strategy to calculate your answers.
- Make sure you have left a space above the answer lines so that you have somewhere to to write the extra 10 and 100 if necessary.
 Predict together if you think you will need an extra 10 or 100 each time.
- Remember to start by adding the 1s on the right, then the 10s in the middle and finally the 100s on the left.
- · Write the whole number answer at the side.
- Some numbers are partitioned for you to start with to remind you how to do it.
 But in the others you need to remember how to partition and lay out the expanded addition yourselves.
- Good luck, you're on an addition mission!

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0	
0	627 + 164
0	
0	600 20 7
0	100 60 4
(+
0	<u>700 90 1 791</u>
0	
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S-t-r-e-t-c-h:

Work out the answer to 748 + 574. The 100s come to more than 1000. Where will you write the 1000? What is the 4-digit answer?

Learning outcomes:

- I can add pairs of 3-digit numbers using expanded addition (answers less than 1000).
- I am beginning to add pairs of 3-digit numbers which give 4-digit answers.

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A Bit Stuck? Addition mission

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Investigation Football Crowds



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	Arsenal	59,999
7	Bournemouth	9,532
(8)	Chelsea	40,437
X	Crystal Palace	25,455
3	Everton	38,780
	Huddersfield	22,202

1	Liverpool	52,983
	Manchester Utd.	74,498
1	Newcastle	51,121
3	Tottenham	54,216
*	Watford	20,003
\\	Wolves	31,137

The table shows average attendance at some Premier League football grounds last season. Use the information in the table to solve these addition problems.

For each problem try to answer first by rounding and estimating, then check by adding.

- 1. Find two teams whose total attendance is less than 30,000.
- 2. Find two teams whose total attendance is very close to 90,000.
- 3. Find two teams whose total attendance is very close to 60,000.
- 4. Emma said that the combined total attendance for Everton and Wolves is greater than 70,000. Is she correct?
- 5. Peter said that the combined total attendance for Tottenham and Chelsea is less than 90.000. Is he correct?
- 6. What is the total of Manchester United and Liverpool's attendance?
- 7. Can you find two more teams whose total attendance is also greater than 100,000?
- 8. Beth said that she can use a mental strategy to add Watford's attendance to any other team's attendance. What strategy did she use? Give some other examples adding to Watford to show how this works.
- 9. Tariq said that he can use a mental strategy to add Arsenal's attendance to any other team's attendance. What strategy did he use? Give some other examples adding to Arsenal to show how this works.

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