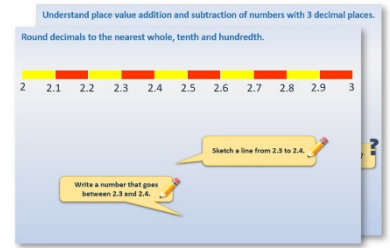


Year 3: Week 1, Day 5

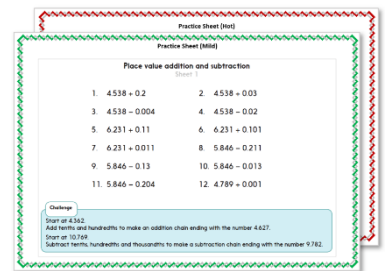
More written addition

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

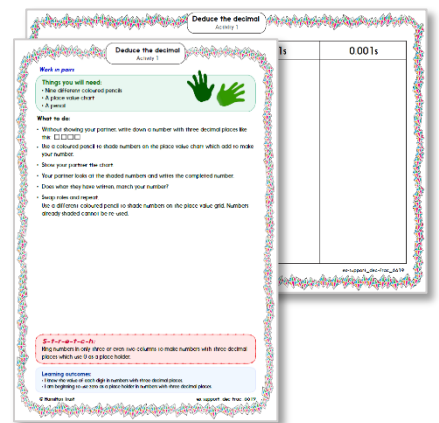
- Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



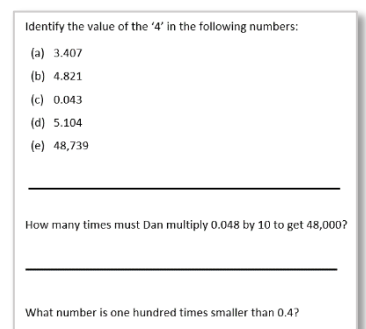
- Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



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



- Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



Learning Reminders

Use expanded addition to add two 3-digit numbers.

$$\begin{array}{r} 500 \ 60 \ 7 \\ + \ 100 \ 50 \ 8 \\ \hline 100 \ 10 \\ \hline 700 \ 20 \ 5 \end{array}$$

$$700 + 20 + 5 = 725$$

Now let's try $567 + 158$. 

Set it out neatly!

Add the 1s, 10s and 100s and recombine.

This time the **1s add to more than 10** AND the **10s add to more than 100**.

Learning Reminders

Use expanded addition to add two 3-digit numbers.

What would be a good **estimate** for $654 + 218$?

Let's go through that using **expanded addition**.

$$\begin{array}{r} 600 \ 50 \ 4 \\ + \ 200 \ 10 \ 8 \\ \hline 800 \ 70 \ 2 \end{array}$$

$$800 + 70 + 2 = 872$$

When we are confident we can try this **compact** method.

$$\begin{array}{r} 654 \\ + 218 \\ \hline 872 \end{array}$$

Learning Reminders

Use written addition to add two 3-digit numbers.

What would be a good **estimate** for $631 + 296$?

Try it using either **expanded** or **compact** addition. 

Let's check using **expanded** addition.

$$\begin{array}{r} 600 \ 30 \ 1 \\ + \ 200 \ 90 \ 6 \\ \hline 900 \ 20 \ 7 \end{array}$$

$$900 + 20 + 7 = 927$$

And with **compact** addition...

$$\begin{array}{r} 631 \\ + 296 \\ \hline 927 \end{array}$$

Practice Sheet Mild

Addition and subtraction practice

Partition each number then use expanded addition to find the answer.

1. $435 + 234$

2. $534 + 361$

3. $427 + 128$

4. $746 + 234$

5. $573 + 261$

6. $482 + 345$

7. $653 + 255$

8. $474 + 350$

Practice Sheet Hot

Addition and subtraction practice

Use expanded and compact column addition to work out the answers to the first two additions.

Did you get the same answer?

Now choose which layout you prefer to work out the answers to the other questions.

1. $456 + 237$

2. $653 + 281$

3. $367 + 218$

4. $584 + 223$

5. $448 + 265$

5. $539 + 273$

6. $478 + 256$

7. $359 + 261$

8. $754 + 158$

9. $645 + 528$

Challenge

Write an addition of two 3-digit numbers with a total of 1000. No zeroes allowed!

Practice Sheet Answers

Addition and subtraction practice (Mild)

1. $435 + 234 = 669$
2. $534 + 361 = 895$
3. $427 + 128 = 555$
4. $746 + 234 = 980$
5. $573 + 261 = 834$
6. $482 + 345 = 827$
7. $653 + 255 = 908$
8. $474 + 350 = 824$

Addition and subtraction practice (Hot)

- | | |
|----------------------|-----------------------|
| 1. $456 + 237 = 693$ | 5. $478 + 256 = 734$ |
| 2. $653 + 281 = 934$ | 6. $359 + 261 = 620$ |
| 3. $367 + 218 = 585$ | 7. $754 + 158 = 912$ |
| 4. $584 + 223 = 807$ | 8. $645 + 528 = 1173$ |
| 5. $448 + 265 = 713$ | 9. $539 + 273 = 812$ |

Challenge

Accept sums which add to a total of 1000 and without zeros, e.g.
 $647 + 353$, $182 + 818$

A Bit Stuck?

Awesome adders

Work in pairs

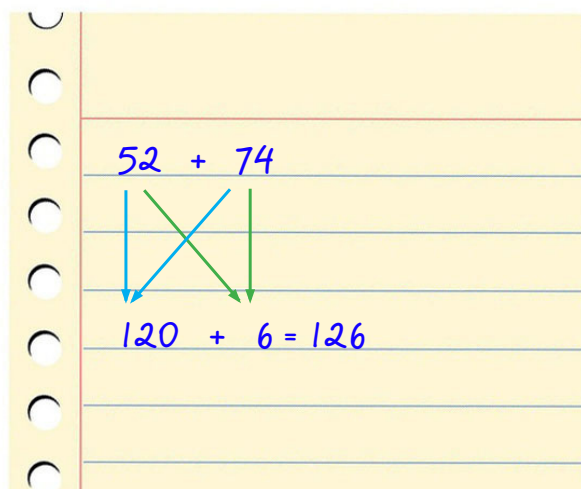
Things you will need:

- A set of 10s and 1s place value cards
- A pencil



What to do:

- Spread the 10 to 90 cards out face up on the table.
Spread the 1 to 9 cards out face up on the table.
- Choose a card from each group and put them together to make a 2-digit number.
- Choose another card from each group to make another 2-digit number.
- One person collects the 10s.
The other person collects the 1s.
How much do you have each?
Now add your totals.
- Record the addition.
- Repeat at least four more times.
- You score 10 points for correct answer less than 100 and 20 points for each correct answer more than 100.



S-t-r-e-t-c-h:

Think of two sums with an answer of 100. Both numbers must be made using both a 10s card and 1s card.

Learning outcomes:

- I can add pairs of 2-digit numbers using partitioning (1s > 10 or 10s > 100).
- I am beginning to add pairs of 2-digit numbers where the 1s come to more than 10 and 10s come to more than 100.



1 0 0

6 0 0



2 0 0

7 0 0

3 0 0

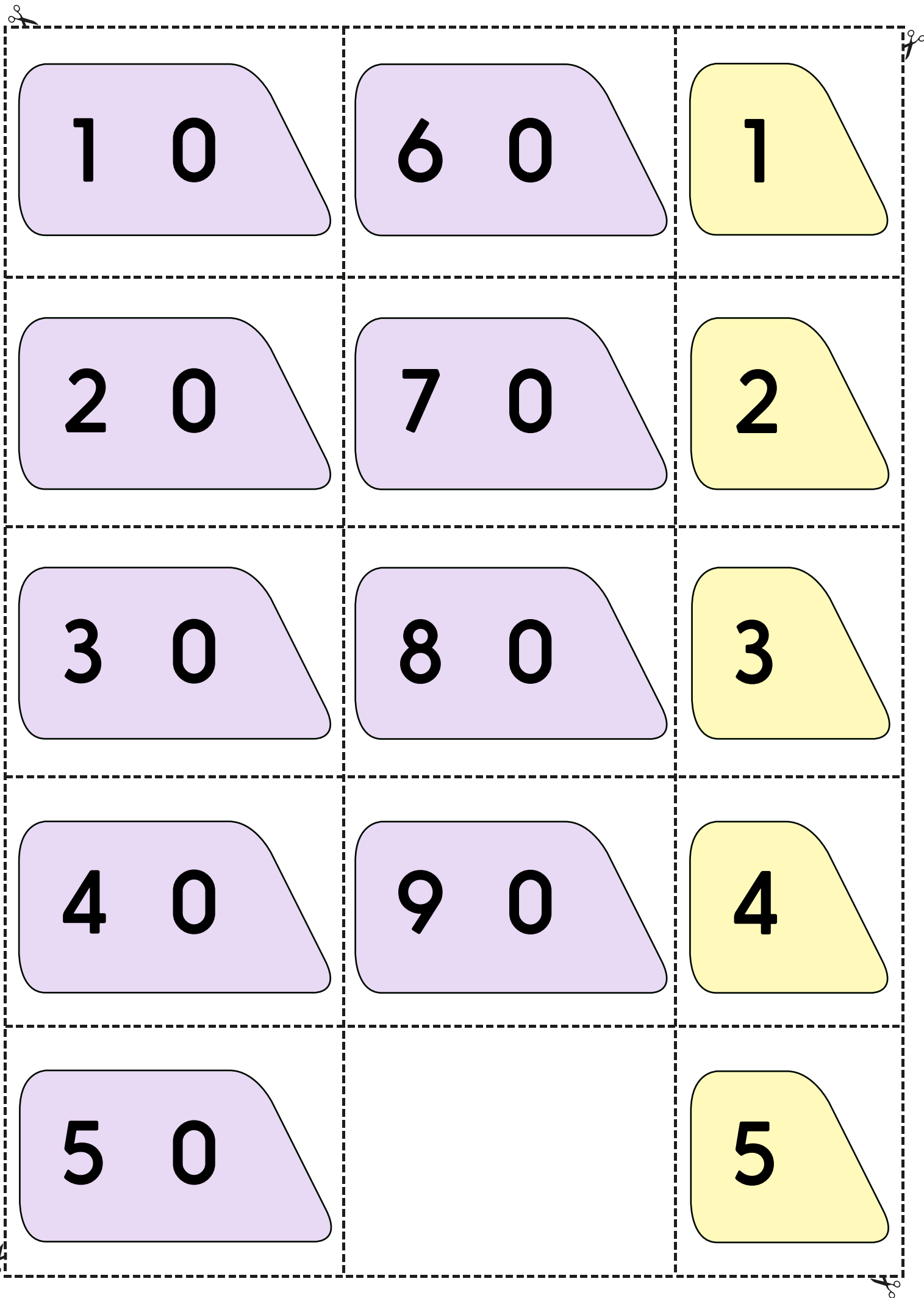
8 0 0

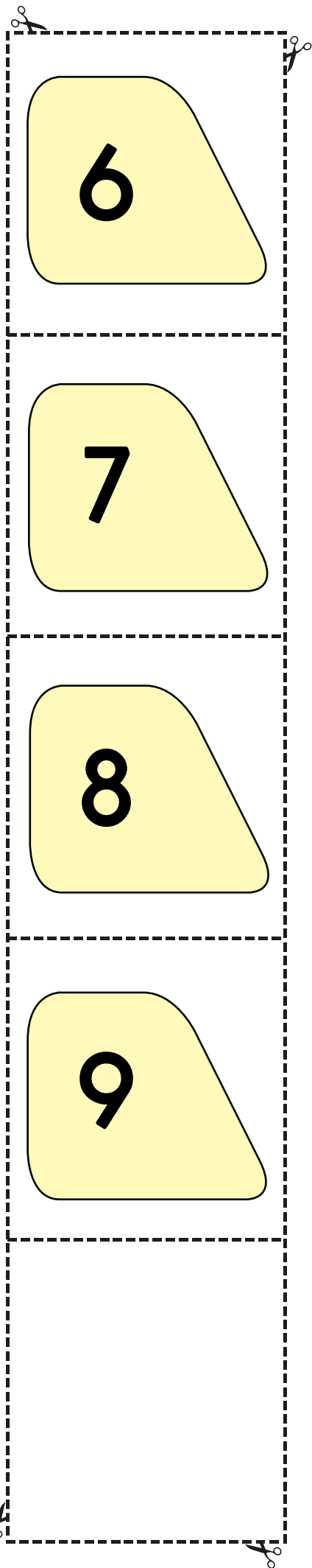
4 0 0

9 0 0

5 0 0







Check your understanding:

Questions

Choose two numbers from the cards below and estimate the total.

Write this.

Then calculate and compare the actual answer with your estimate.

Repeat, choosing two different numbers.

475

386

248

349

Choose to use expanded or compact addition to add 484 to 368. Explain your choice.

Add two numbers both ending in 5 to make 810.

One digit must be '6'.

Fold here to hide answers

Check your understanding:

Answers

Choose two numbers from the cards below and estimate the total.

Write this.

Then calculate and compare the actual answer with your estimate.

Repeat, choosing two different numbers.

The 6 possible pairs and totals are:

$$475 + 386 = 861$$

$$475 + 349 = 824$$

$$475 + 248 = 723$$

$$386 + 349 = 735$$

$$386 + 248 = 634$$

$$349 + 248 = 597$$

Children should be estimating before doing the sum. They estimate by rounding to the nearest 100 or nearest 10. So estimate the first by doing $500 + 400 = 900$ (answer is 861).

Choose to use expanded or compact addition to add 484 to 368. Explain your choice.

The total is 852. If children are making errors with compact addition, then look at both methods side by side.

Add two numbers both ending in 5 to make 810.

One digit must be '6'. Many possible answers, e.g. $605 + 205$. Check that the addition is correct and that a 6 is included!