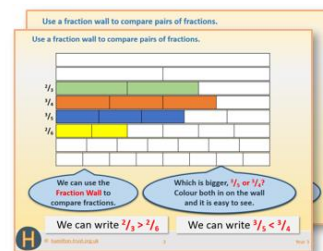


Week 13, Day 1

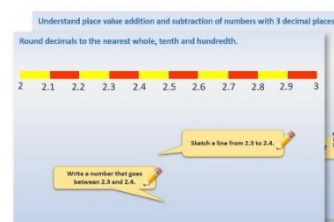
Add and subtract near multiples of 10, 100, 1000.

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**.

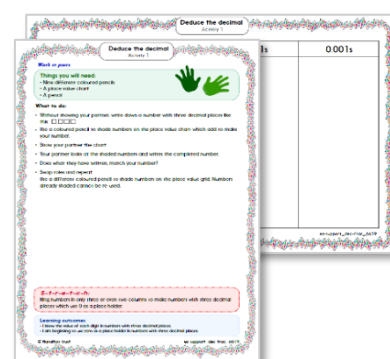


2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.

Place value addition and subtraction	
1. $4538 + 02$	2. $4538 + 003$
3. $4538 - 0004$	4. $4538 - 002$
5. $6231 + 011$	6. $6231 + 0101$
7. $6231 + 0011$	8. $5846 - 0211$
9. $5846 - 013$	10. $5846 - 0013$
11. $5846 - 0204$	12. $4789 - 0001$

Challenge
Start at 4562.
Add tenths and hundredths to make an addition chain ending with the number 4627.
Start at 10749.
Subtract tenths, hundredths and thousandths to make a subtraction chain ending with the number 9782.

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...**

Learning Reminders

Add and subtract near multiples of 10, 100, 1000.

$$4658 + 198$$

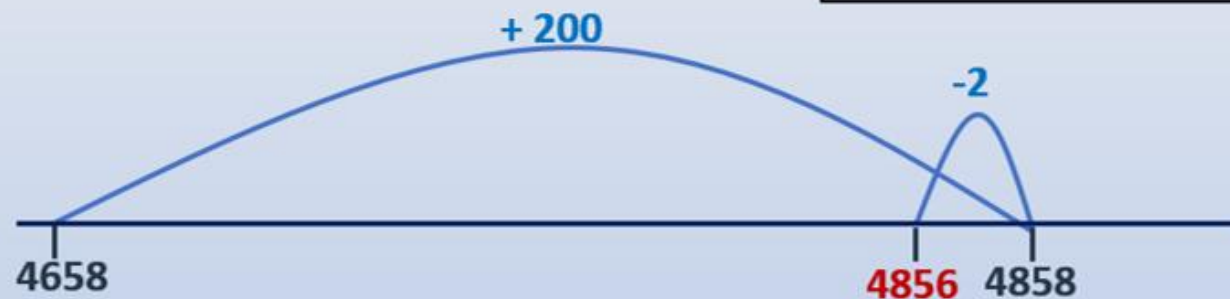
$$4658 + 205$$

198 and 205 are both close to 200.

Let's start with that fact that
 $4658 + 200 = 4858$...

To find $4658 + 198$, add 200
then subtract 2 as 198 is
2 less than 200.

$$4658 + 198 = 4856$$



Learning Reminders

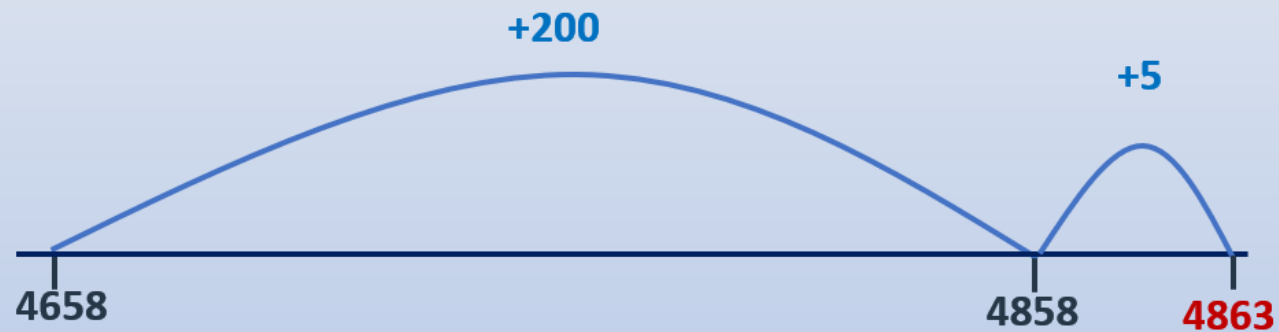
Add and subtract near multiples of 10, 100, 1000.

$$4658 + 198$$

$$4658 + 205$$

To find $4658 + 205$, add 200 then 5 more as 205 is 5 more than 200.

$$4658 + 205 = 4863$$



Learning Reminders

Add and subtract near multiples of 10, 100, 1000.

$$4658 - 2005$$

$$4658 - 1998$$

We know $4658 - 2000$ is 2658.

2005 is 5 more than 2000 so
subtract 5 more:

$$4658 - 2000 = 2658$$

$$4658 - 2005 = 2653$$

1998 is 2 less than 2000 so
add 2 back:

$$4658 - 2000 \text{ is } 2658$$

$$4658 - 1998 = 2660$$

Practice Sheet Mild

Add and subtract near multiples of 10, 100, 1000

- | | | | |
|----|---------------|---------------|---------------|
| 1. | $6545 + 30$ | $6545 + 32$ | $6545 + 28$ |
| 2. | $7365 + 70$ | $7365 + 73$ | $7365 + 67$ |
| 3. | $5352 + 400$ | $5352 + 405$ | $5352 + 395$ |
| 4. | $4578 + 2000$ | $4578 + 2003$ | $4578 + 1999$ |
| 5. | $7472 - 50$ | $7472 - 51$ | $7472 - 49$ |
| 6. | $3843 - 300$ | $3843 - 302$ | $3843 - 298$ |
| 7. | $4270 - 400$ | $4270 - 401$ | $4270 - 399$ |
| 8. | $8452 - 3000$ | $8452 - 3005$ | $8452 - 2995$ |

Practice Sheet Hot

Add and subtract near multiples of 10, 100, 1000

- | | | |
|-----|-----------------|-----------------|
| 1. | $5378 + 51$ | $5378 + 48$ |
| 2. | $6425 - 602$ | $6425 - 597$ |
| 3. | $4635 + 2002$ | $4635 + 1995$ |
| 4. | $24,378 + 405$ | $24,378 + 398$ |
| 5. | $34,651 + 3002$ | $34,561 + 2997$ |
| 6. | $67,384 - 53$ | $67,384 - 49$ |
| 7. | $32,456 - 4002$ | $32,456 - 3995$ |
| 8. | $45,823 + 503$ | $45,823 + 496$ |
| 9. | $32,538 + 410$ | $32,538 + 390$ |
| 10. | $73,256 - 5020$ | $73,256 - 4990$ |

Practice Sheets Answers

Add and subtract near multiples of 10, 100, 1000 (mild)

- | | | | |
|----|----------------------|----------------------|----------------------|
| 1. | $6545 + 30 = 6575$ | $6545 + 32 = 6577$ | $6545 + 28 = 6573$ |
| 2. | $7365 + 70 = 7435$ | $7365 + 73 = 7438$ | $7365 + 67 = 7432$ |
| 3. | $5352 + 400 = 5752$ | $5352 + 405 = 5757$ | $5352 + 395 = 5747$ |
| 4. | $4578 + 2000 = 6578$ | $4578 + 2003 = 6581$ | $4578 + 1999 = 6577$ |
| 5. | $7472 - 50 = 7422$ | $7472 - 51 = 7421$ | $7472 - 49 = 7423$ |
| 6. | $3843 - 300 = 3543$ | $3843 - 302 = 3541$ | $3843 - 298 = 3545$ |
| 7. | $4270 - 400 = 3870$ | $4270 - 401 = 3869$ | $4270 - 399 = 3871$ |
| 8. | $8452 - 3000 = 5452$ | $8452 - 3005 = 5447$ | $8452 - 2995 = 5457$ |

Add and subtract near multiples of 10, 100, 1000 (hot)

- | | | |
|-----|--------------------------|--------------------------|
| 1. | $5378 + 51 = 5429$ | $5378 + 48 = 5426$ |
| 2. | $6425 - 602 = 5823$ | $6425 - 597 = 5828$ |
| 3. | $4635 + 2002 = 6637$ | $4635 + 1995 = 6630$ |
| 4. | $24,378 + 405 = 24,783$ | $24,378 + 398 = 24,776$ |
| 5. | $34,651 + 3002 = 37,653$ | $34,651 + 2997 = 37,558$ |
| 6. | $67,384 - 53 = 67,331$ | $67,384 - 49 = 67,335$ |
| 7. | $32,456 - 4002 = 28,454$ | $32,456 - 3995 = 28,461$ |
| 8. | $45,823 + 503 = 46,326$ | $45,823 + 496 = 46,319$ |
| 9. | $32,538 + 410 = 32,948$ | $32,538 + 390 = 32,928$ |
| 10. | $73,256 - 5020 = 68,236$ | $73,256 - 4990 = 68,266$ |

A Bit Stuck?

Adding multiples of 10 and 100 and multiples +1, -1

Sketch an empty number line for each question.

It will help you to visualise which way to adjust each addition.

1. $156 + 20$

$156 + 19$

$156 + 21$

6. $435 + 300$

$435 + 299$

$435 + 301$

2. $347 + 40$

$347 + 39$

$347 + 41$

7. $726 + 100$

$726 + 99$

$726 + 101$

3. $661 + 30$

$661 + 29$

$661 + 31$

8. $412 + 400$

$412 + 399$

$412 + 401$

4. $346 + 100$

$346 + 99$

$346 + 101$

9. $189 + 30$

$189 + 29$

$189 + 31$

5. $257 + 200$

$257 + 199$

$257 + 201$

10. $275 + 40$

$275 + 39$

$275 + 41$

A Bit Stuck?

Answers

Adding multiples of 10 and 100 and multiples +1, -1

1. $156 + 20 = 176$

2. $347 + 40 = 387$

3. $661 + 30 = 691$

4. $346 + 100 = 446$

5. $257 + 200 = 457$

6. $435 + 300 = 735$

7. $726 + 100 = 826$

8. $412 + 400 = 812$

9. $189 + 30 = 219$

10. $275 + 40 = 315$

$156 + 19 = 175$

$347 + 39 = 386$

$661 + 29 = 690$

$346 + 99 = 445$

$257 + 199 = 456$

$435 + 299 = 734$

$726 + 99 = 825$

$412 + 399 = 811$

$189 + 29 = 218$

$275 + 39 = 314$

$156 + 21 = 177$

$347 + 41 = 388$

$661 + 31 = 692$

$346 + 101 = 447$

$257 + 201 = 458$

$435 + 301 = 736$

$726 + 101 = 827$

$412 + 401 = 813$

$189 + 31 = 220$

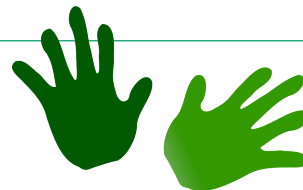
$275 + 41 = 316$

Investigation

Add and subtract near multiples

Things you will need:

- Add and subtract near multiples:
Set 1 and Set 2



Start with 5468

- Add near multiples to this number, then subtract near multiples from it.
- Cut up and spread out** Set 1 of the 'Add and subtract near multiples' cards.
- Choose an **addition** card and decide what multiple of 10, 100 or 1000 it would be useful to add to 5468.

e.g.

Choose '+ 305 and + 299' add 300.

$$5468 + 300 = 5768$$

- Now calculate $5468 + 305$ (add 5 more to 5768) and $5468 + 299$ (subtract 1 from 5768). *You can draw a number line to help: no adding in columns!*
- Repeat with three different addition cards, each time starting with 5468.
- Can you predict what the *difference* will be between your two answers?
- Repeat for **subtractions**.

e.g.

Choose '- 1005 and - 995'.

Subtract 1000: $5468 - 1000 = 4468$

How will you find $5468 - 1005$ and $5468 - 995$?

- Repeat for 3 more **subtraction** cards, each time starting with 5468.

Challenge

Start with 23,456 and use Set 2 of the 'Add and subtract near multiples' cards.

Investigation
Add and subtract near multiples: Set 1



$$\begin{array}{r} +23 \\ +19 \end{array}$$

$$\begin{array}{r} +51 \\ +48 \end{array}$$

$$\begin{array}{r} +102 \\ +98 \end{array}$$

$$\begin{array}{r} +305 \\ +299 \end{array}$$

$$\begin{array}{r} +2000 \\ +1997 \end{array}$$

$$\begin{array}{r} +1006 \\ +995 \end{array}$$

$$\begin{array}{r} -43 \\ -38 \end{array}$$

$$\begin{array}{r} -71 \\ -69 \end{array}$$

$$\begin{array}{r} -104 \\ -99 \end{array}$$

$$\begin{array}{r} -202 \\ -198 \end{array}$$

$$\begin{array}{r} -1005 \\ -995 \end{array}$$

$$\begin{array}{r} -2001 \\ -1999 \end{array}$$



Investigation

Add and subtract near multiples: Set 2



$$\begin{array}{r} +8002 \\ +7998 \\ \hline \end{array}$$

$$\begin{array}{r} +4005 \\ +3997 \\ \hline \end{array}$$

$$\begin{array}{r} +304 \\ +299 \\ \hline \end{array}$$

$$\begin{array}{r} +601 \\ +599 \\ \hline \end{array}$$

$$\begin{array}{r} +98 \\ +104 \\ \hline \end{array}$$

$$\begin{array}{r} +83 \\ +79 \\ \hline \end{array}$$

$$\begin{array}{r} -4001 \\ -3998 \\ \hline \end{array}$$

$$\begin{array}{r} -2004 \\ -1995 \\ \hline \end{array}$$

$$\begin{array}{r} -303 \\ -298 \\ \hline \end{array}$$

$$\begin{array}{r} -703 \\ -697 \\ \hline \end{array}$$

$$\begin{array}{r} -45 \\ -39 \\ \hline \end{array}$$

$$\begin{array}{r} -73 \\ -68 \\ \hline \end{array}$$

