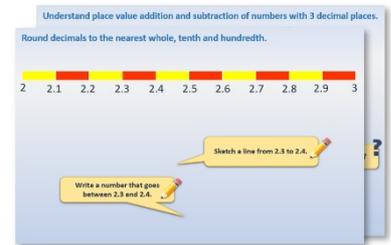


Year 5: Week 2, Day 2

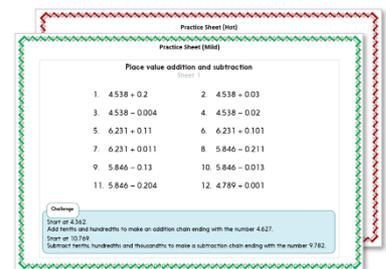
Decimals: Rounding to the nearest tenth and whole

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

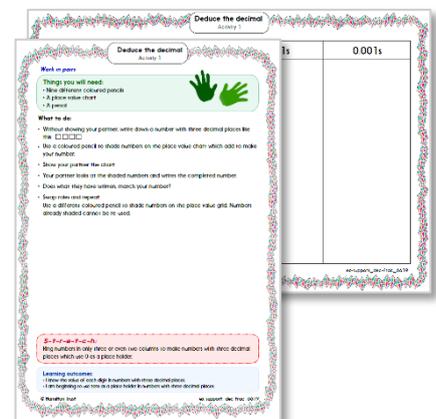
1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



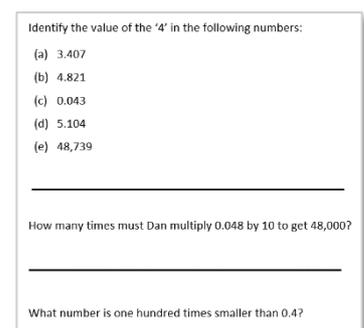
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



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



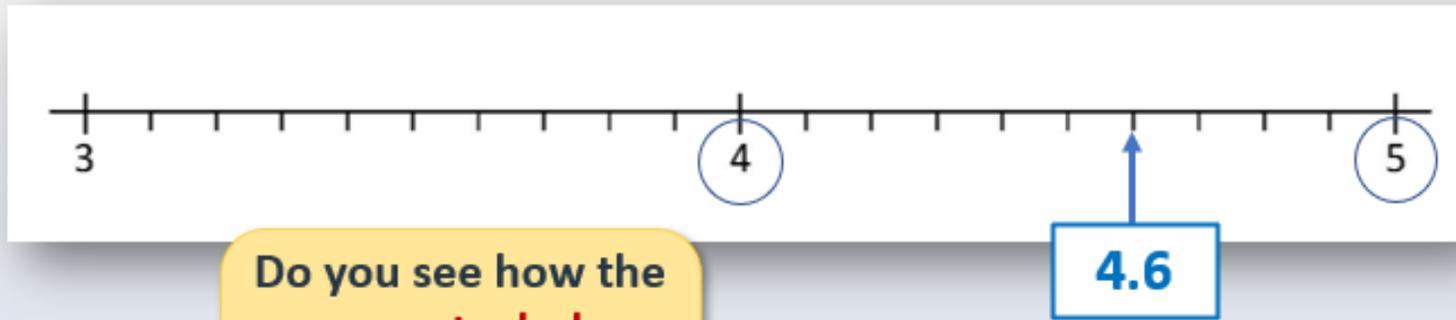
4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



Learning Reminders

Round 1-place decimals to the nearest whole.

I've marked on 4.6



Do you see how the **nearest whole** number to 4.6 is **5**, not 4?

Which whole number would **3.3** round to?

It rounds down to 3.

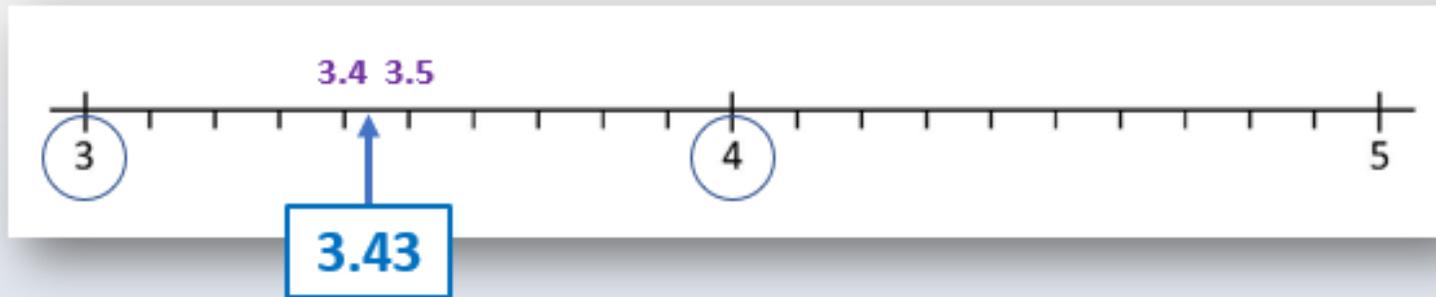
Which whole number would **4.5** round to?

*Don't forget that **halfway** numbers round **up**. So, 4.5 rounds up to 5 as the **nearest whole**.*

Learning Reminders

Round 2-place decimals to the nearest tenth or whole.

I've marked on 3.43

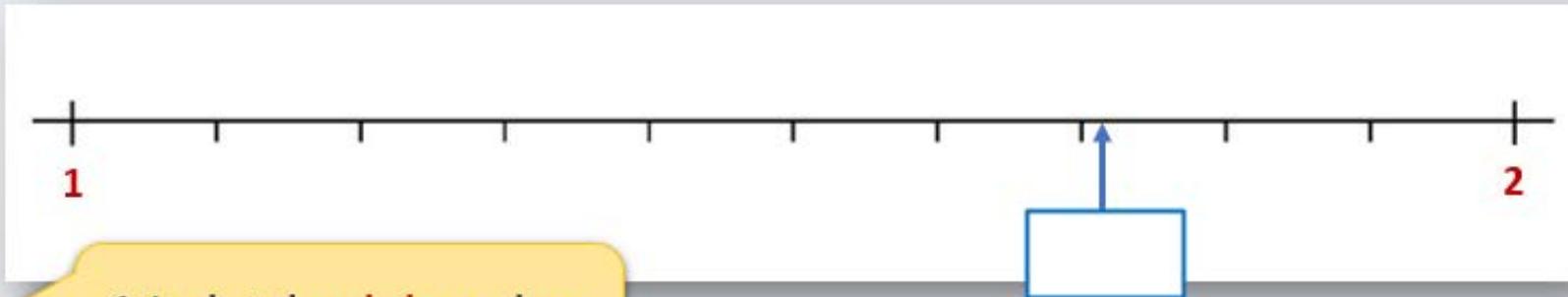


Do you see how
the **nearest whole
number** is **3**,
not 4?

- If we want to round 3.43 to the **nearest tenth**, look at the tenths numbers on either side... 3.4 and 3.5.
- How far along is 3.43 between 3.40 and 3.50?
- *Not* halfway (that would be 3.45) so it rounds down to **3.4**.

Learning Reminders

Place numbers with 2 decimal places on a line; round to the nearest tenth or whole.



1. Look at the **whole** numbers at either end of this line...

2. Label the **tenths** that are landmarked.

3. Estimate the missing number.

Which **tenths** number does the missing number round to?

It rounds down to 1.7

Which **whole** number does the missing number round to?

It rounds up to 2

Practice Sheet Mild

Placing and rounding decimals

Mark the numbers in the table on the line. Then round them to the nearest tenth and whole number.



Number	Nearest tenth	Nearest whole
2.49		
2.25		
2.05		
2.53		
2.94		
2.06		
2.31		
2.86		
2.75		
2.17		

Practice Sheet Hot

Placing and rounding decimals

Mark the numbers in the table on the line. Then round them to the nearest tenth and whole number.
What other marks or numbers could you put on the line to help you?



Number	Nearest tenth	Nearest whole
2.49		
2.78		
2.25		
2.53		
2.94		
2.06		
2.31		
2.86		
2.65		
2.17		

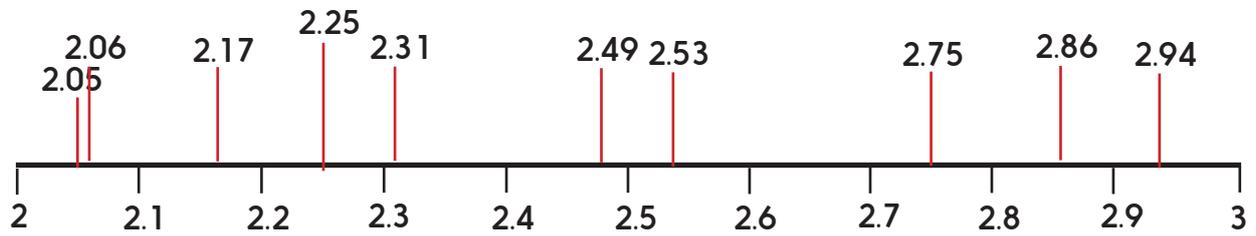
Challenge

Mark the following numbers on the line:

- The smallest 2-place decimal that rounds up to 2.5 as the nearest tenth.
- The largest 2-place decimal that rounds down to 3 as the nearest whole.

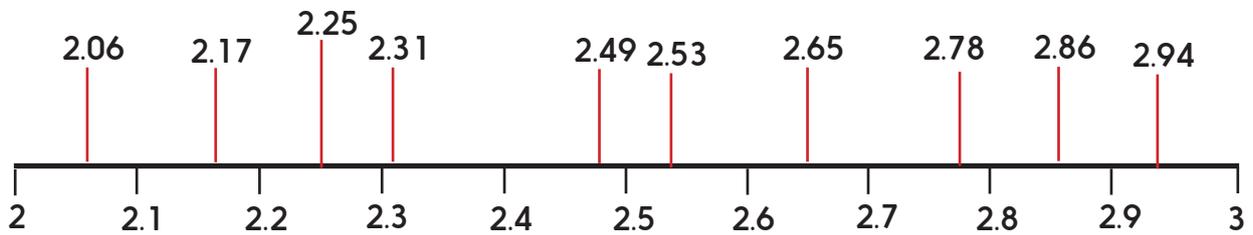
Practice Sheets Answers

Placing and rounding decimals (mild)



Number	Nearest tenth	Nearest whole
2.49	2.5	2
2.25	2.3	2
2.05	2.1	2
2.53	2.5	3
2.94	2.9	3
2.06	2.1	2
2.31	2.3	2
2.86	2.9	3
2.75	2.8	3
2.17	2.2	2

Placing and rounding decimals (hot)



Number	Nearest tenth	Nearest whole
2.49	2.5	2
2.78	2.8	3
2.25	2.3	2
2.53	2.5	3
2.94	2.9	3
2.06	2.1	2
2.31	2.3	2
2.86	2.9	3
2.65	2.7	3
2.17	2.2	2

Challenge

- a.) 2.44
- b.) 2.49

A Bit Stuck? Mark and round

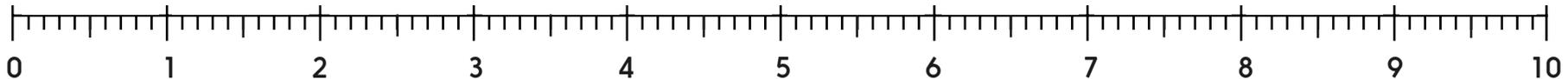
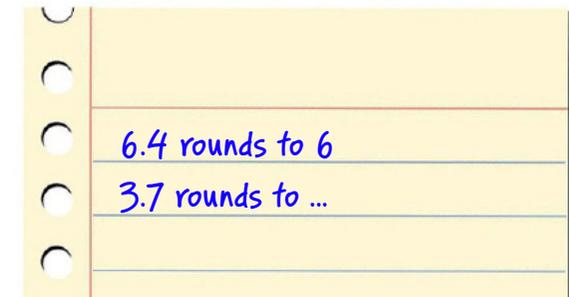
Work in pairs, but write on your own sheet

What to do:

- Shuffle the digit cards.
Turn them face down.
Take the top two cards and make a number with one decimal place, e.g. take 6 and 4 to make 6.4.
- Mark this number on the line.
- Round this number to the nearest whole number.
- Repeat.
- When all the cards have been used, shuffle them and place face down. That way you can keep playing.
- How many numbers can you mark and round before time is up?

Things you will need:

- 0 to 9 digit cards
- A pencil

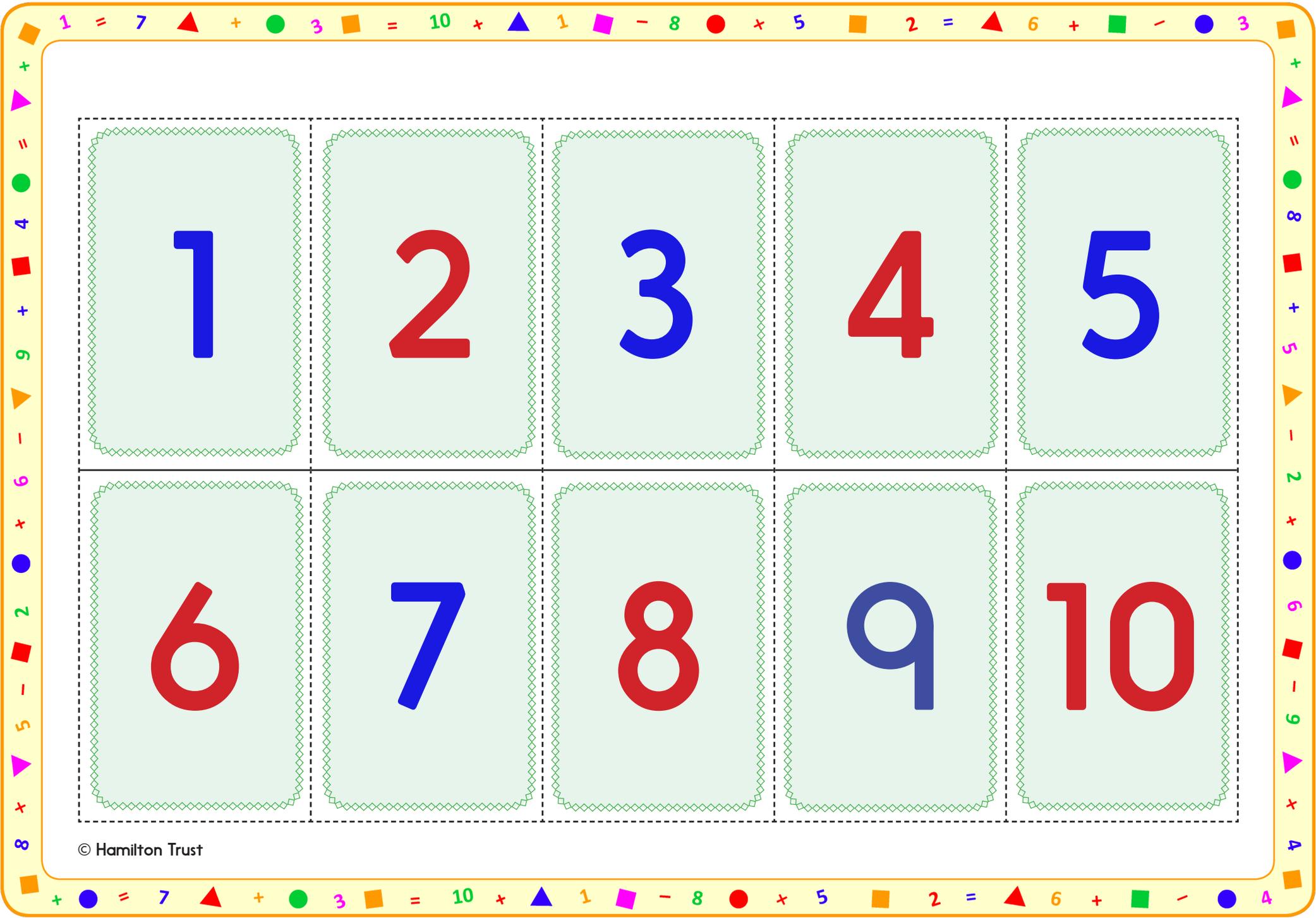


S-t-r-e-t-c-h:

Think of two numbers between 4 and 5, one which rounds down to 4 and one which rounds up to 5.

Learning outcomes:

- I can mark numbers with one decimal place on a marked number line.
- I can round numbers with one decimal place to the nearest whole.
- I am beginning to solve problems involving rounding to the nearest whole.



1	2	3	4	5
6	7	8	9	10

© Hamilton Trust

Check your understanding

Questions

What number am I? (three clues for just one number – guess after each clue)

A

- (i) I round to 5.6 as the nearest tenth.
- (ii) I round to 6 as the nearest whole number.
- (iii) My digital root is 6.

B

- (i) I round to 3.5 as the nearest tenth.
 - (ii) I round to 3 as the nearest whole number.
 - (iii) My digits are consecutive.
-

Sam wrote:

2.49 rounds to 3 as the nearest whole number because 2.49 rounds to 2.5 as the nearest tenth, and 2.5 rounds up to 3 as the nearest whole number.

Explain why his reasoning is incorrect.

Fold here to hide answers:

Check your understanding

Answers

What number am I? (three clues for just one number – guess after each clue)

A

- (i) I round to 5.6 as the nearest tenth.
- (ii) I round to 6 as the nearest whole number.
- (iii) My digital root is 6. **5.55 or 5.64**

B

- (i) I round to 3.5 as the nearest tenth.
 - (ii) I round to 3 as the nearest whole number.
 - (iii) My digits are consecutive. **3.45**
-

Sam wrote:

2.49 rounds to 3 as the nearest whole number because 2.49 rounds to 2.5 as the nearest tenth, and 2.5 rounds up to 3 as the nearest whole number.

Explain why his reasoning is incorrect.

This is a common misunderstanding. To round 2.49 to the nearest whole, the original number must be used. It can be checked on a number line that 2.49 is closer to (and therefore rounds to) 3 not 4.