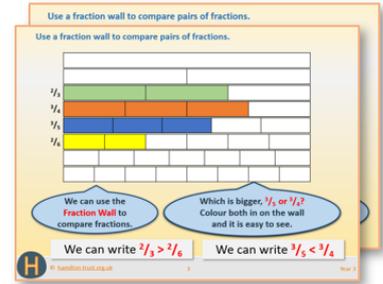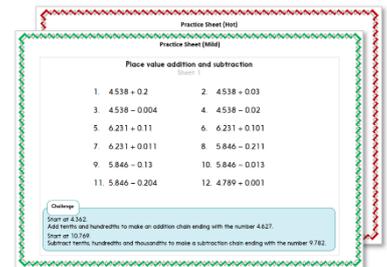# Week 8, Day 5

Compare and order negative numbers

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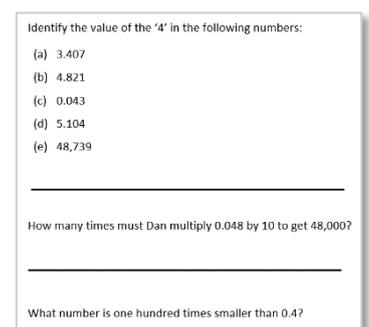
2. Tackle the questions on the **Practice Sheet**.
   There might be a choice of either Mild (easier) or Hot (harder)!
   Check the answers.

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**.
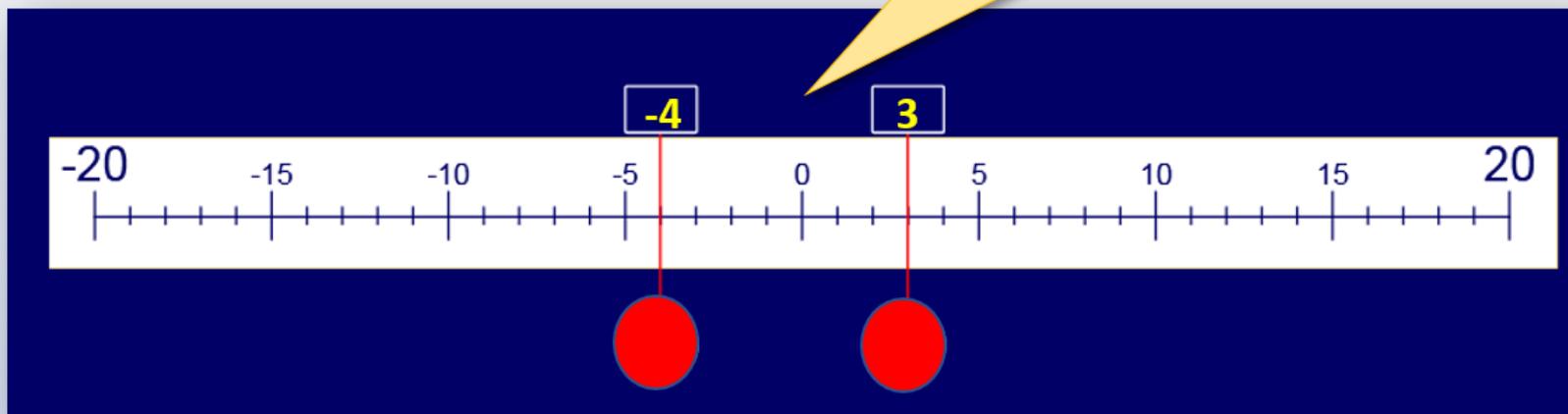   Fold the page to hide the answers!

Learning Reminders

Compare and order negative numbers.

We use negative numbers for cold temperatures, depths below sea level and bank overdrafts...

3 > -4.
If you are not sure when comparing with negative numbers think about temperature, 3° is warmer than -4°.
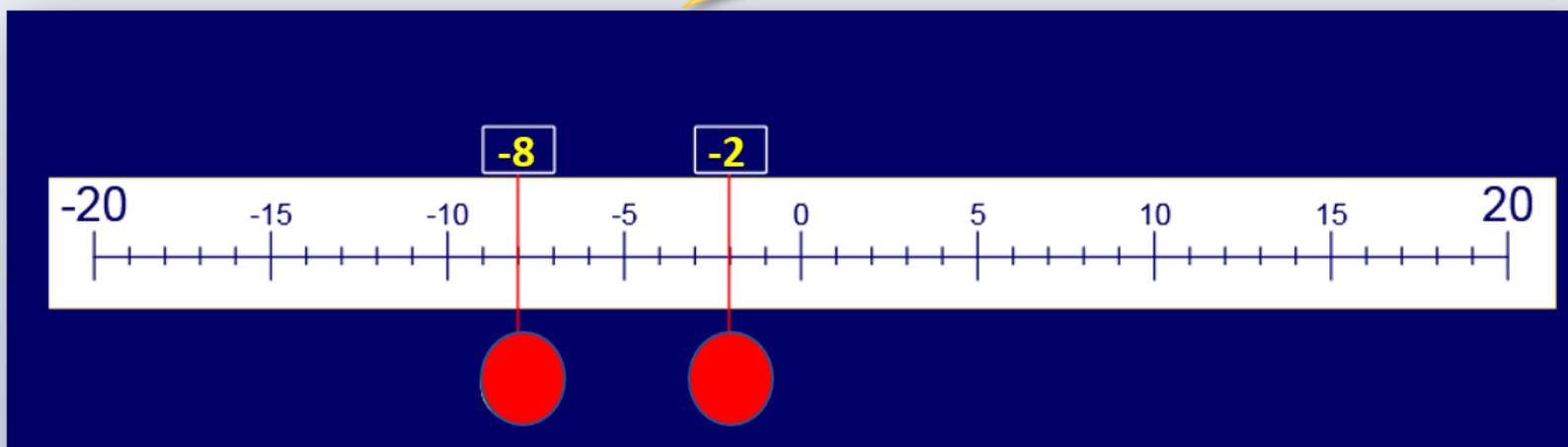
-20 -15 -10 -5 0 5 10 15 20

-4   3

-3, -2, -1, 0, 1 and 2 are all **between** -4 and 3.

Learning Reminders

Compare and order negative numbers.

-2 > -8.
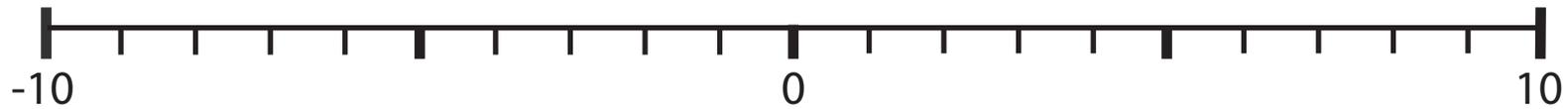-8°is colder than -2° so -2 is the greater number.

-7, -6, -5, -4, -3 are all **between** -8 and -2.

Ordering positive and negative numbers

Complete any missing numbers on the –10 to 10 number line, then use it to answer the questions below.

```
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
-10                                                     0                                                      10
```

A. Write < or > between each pair of numbers.

    1.   -5   4
    2.   3 -7
    3.   -6   6
    4.   -5 -3
    5.   -2 -10

B. Write each set of numbers in order, smallest first.

    6.   -3, 3, -2
    7.   6, -1, 4
    8.   -4, -10, -8
    9.   2, -2, 7, -7
    10.   4, 0, -2, 5, -6

Practice Sheet Hot
Ordering positive and negative numbers

A. Write < or > between each pair of numbers.

    1.   -5   4
    2.   3 -7
    3.   -6 6
    4.   -5 -3
    5.   -2 -10

B. Write each set of numbers in order, smallest first.

    6.   -3, 3, -2
    7.   6, -1, 4
    8.   -4, -10, -8
    9.   2, -2, 7, -7
    10.   4, 0, -2, 5, -6

C. Write two numbers which go between each pair of numbers.

    11.   -7 and 0
    12.   -2 and 2
    13.   5 and -1
    14.   -3 and -10
    15.   0 and -4

Challenge

Tina says '-10°C must be really warm because it is 70 degrees hotter than the Antarctic!'
Do you agree with her?

Practice Sheets Answers

Ordering positive and negative numbers (mild)

A.
1. -5 < 4
2. 3 > -7
3. -6 < 6
4. -5 < -3
5. -2 > -10

B.
6. -3, -2, 3
7. -1, 4, 6
8. -10, -8, -4
9. -7, -2, 2, 7
10. -6, -2, 0, 4, 5

Ordering positive and negative numbers (hot)

A.
1. -5 < 4
2. 3 > -7
3. -6 < 6
4. -5 < -3
5. -2 > -10

B.
6. -3, -2, 3
7. -1, 4, 6
8. -10, -8, -4
9. -7, -2, 2, 7
10. -6, -2, 0, 4, 5

C.
Accept two answers from the following:
11. -6, -5, -4, -3, -2, -1
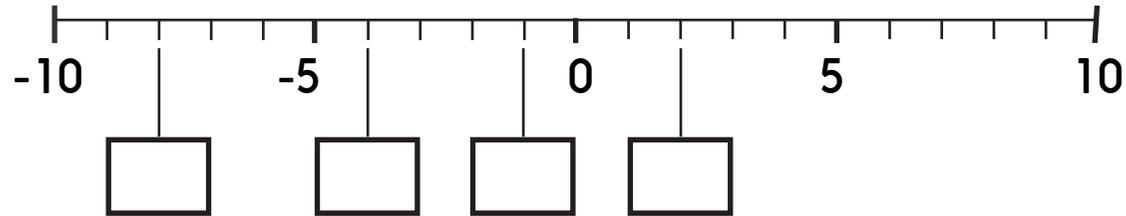12. -1, 0, 1
13. 4, 3, 2, 1, 0
14. -4, -5, -6, -7, -8, -9

Challenge

Tina is wrong. Negative temperatures are colder as they increase.

Explore more Hamilton Trust Learning Materials at https://wrht.org.uk/hamilton

A Bit Stuck?
Positive and negative numbers

1. Write the missing numbers in the boxes.

-10   -5   0   5   10

2. Write the number that goes between the numbers.

-2 ☐ 0   -10 ☐ -8   -1 ☐ 1   -6 ☐ -4

3. Write < or > between each pair of numbers.

-4   4   3   -1   -5   -2   -10   -6   3   -3   -8   2   0   -7

4. Write each group of numbers in order, smallest first.

-2, 2, 0   ___ ___ ___

4, -1, 6   ___ ___ ___

-10, 3, -5   ___ ___ ___

4, -3, -1   ___ ___ ___

-5, -9, -2   ___ ___ ___
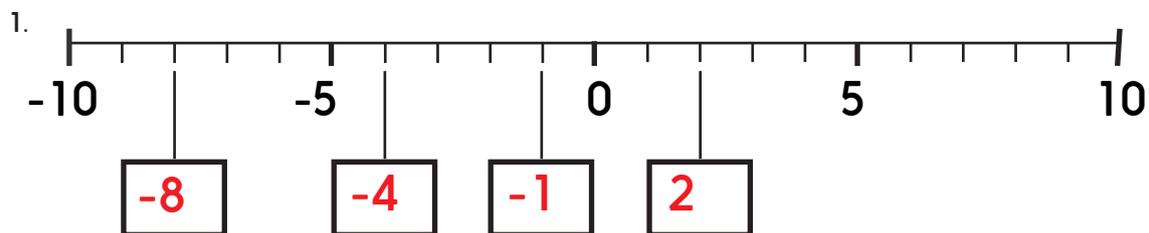
3, 0, -6   ___ ___ ___

Challenge

The year this year is _____ .
What year was it 2050 years ago?

5. Write three numbers between -10 and -3.

A Bit Stuck Answers

Positive and negative numbers

1.

```
-10        -5         0         5        10
```
| -8 | -4 | -1 | 2 |

2.

-2 -1 0   -10 -9 -8   -1 0 1   -6 -5 -4

3.

-4 < 4   3 > -1   -5 < -2   -10 < -6   3 > -3   -8 < 2   0 > -7

4.   Write each group of numbers in order, smallest first.

-2, 2, 0	-2 0 2
4, -1, 6	-1 4 6
-10, 3, -5	-10 -5 3
4, -3, -1	-3 -1 4
-5, -9, -2	-9 -5 -2
3, 0, -6	-6 0 3

4.   Write three numbers between -10 and -3.
Accept three of the following:
-9, -8, -7, -6, -5 or -4

Challenge

Do children give the year in terms of a negative number, e.g. -31' for 2019?
Of course, we count back past the 'year zero' in positive numbers 'BCE' (Before Common Era), so 2050 years before 2019 was 31 BCE.

Check your understanding
Questions

Count on in steps of 4 from -27. How many steps to reach or pass 20?

_____

Count in steps of -5. Start at +3. How many steps to get to -42?

_____

Order these temperatures, starting with the lowest:

12°C   -6°C   -11°C   0°C   27°C

Fold here to hide answers

_____

_____

Check your understanding
Answers

Count on in steps of 4 from -27. How many steps to reach or pass 20?
12 steps: -23, -19, -15, -11, -7, -3, 1, 5, 9, 13, 17, **21.**

_____

Count in steps of -5. Start at +3. How many steps to get to –42?

9 steps: -2, -7, -12, -17, -22, -27, -32, -37, **-42.**
Note the pattern in the 1s digits of the negative numbers.

_____

Order these temperatures, starting with the lowest:

12°C   -6°C   -11°C   0°C   27°C
-11°C -6°C   0°C 12°C   27°C   Check on a number line if not sure.