



Compare and Order Numbers

Student's Book p.31

What You Will Learn:

- Compare positive and negative numbers using symbol. ' $<$ ', ' $>$ ' and ' $=$ '.
- Order positive and negative numbers.

Look Back

Ron and Eddy record the temperatures for a week.

DATE: _____

Day	Temperature ($^{\circ}\text{C}$)
1	4
2	-2
3	0
4	-3
5	-4
6	-5
7	1

temperature records

DATE: _____

There are 4 days with temperature below zero.

On how many days is the temperature below 0°C ? Share with a partner.

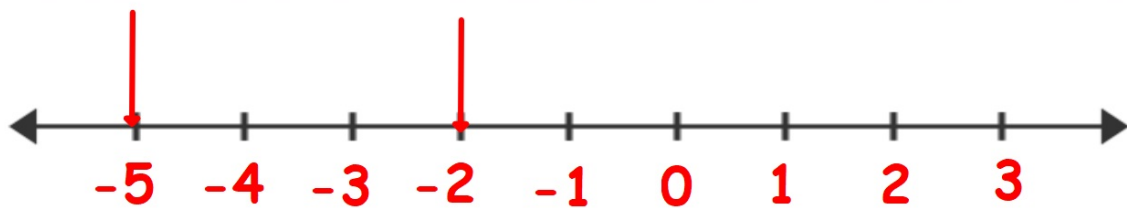
negative

Student's book p.31

Thinking Cap



Is -2°C warmer or colder than -5°C ? How can you arrange the temperatures in the chart from the lowest to the highest? Explain how you know by drawing it out.



-2°C is warmer than -5°C

$$-2 > -5$$

Thinking Cap



Is -2°C warmer or colder than -5°C ? How can you arrange the temperatures in the chart from the lowest to the highest? Explain how you know by drawing it out.

coldest to warmest



31

Colder because it is further away from zero so getting colder.

If it is negative 10°C in my freezer now, is that warmer or colder than my fridge?

Colder because it is below zero so is getting colder.

Day 2 it was negative 2°C . Day 3 it is 0°C . Is it warmer or colder on day 3? How do you know?

Warmer because it is zero so warmer than negative.

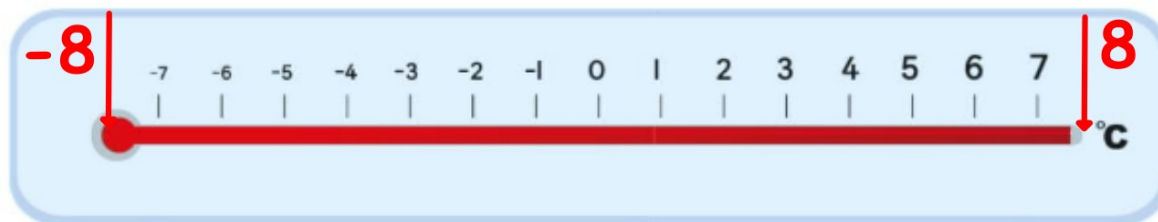
Have students order the temperatures from coldest to warmest.

-5°C , -4°C , -3°C , -2°C , 0°C , 1°C , 4°C .

Student's book p.32

Let's Learn

Ron and Eddy look at the number line and think about temperatures.



Negative numbers
Numbers to the **left** are becoming **smaller** or lower.

Positive numbers
Numbers to the **right** are becoming **larger** or higher.

Negative numbers are < 0 .

Positive numbers are > 0 .

0 is **neutral**. It is neither positive nor negative.

Compare the temperatures using $<$ and $>$.

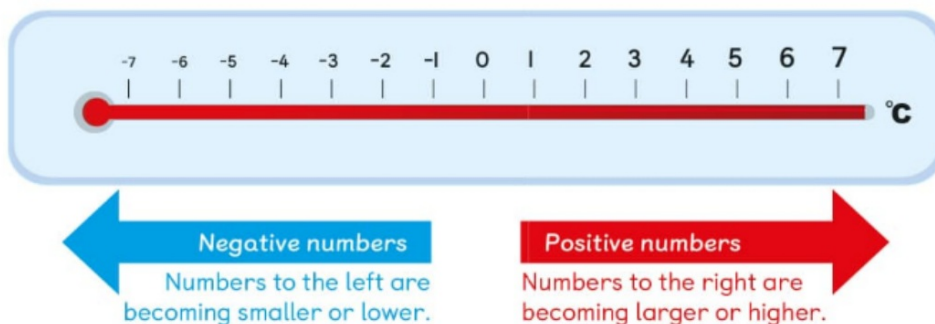
Where do you think -8 and 8 would be? Talk to a partner.



Let's Learn

Student's Book p.32

Ron and Eddy look at the number line and think about temperatures.



Negative numbers are < 0 .

Positive numbers are > 0 .

0 is neutral. It is neither positive nor negative.

Compare the temperatures using $<$ and $>$.

What do you notice about the diagram?

The numbers are symmetrical with zero in the middle.

Negative numbers are shown with a sign but positive numbers have no sign.

Where are the negative numbers?

To the left of zero. Negative numbers decrease the further from zero they are.

Which is the highest temperature? Which is the lowest temperature?

7 is highest, -7 is lowest.

Where do you think -8 and 8 would be? Talk to a partner.



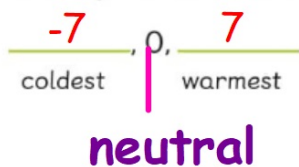
Student's Book p.32

a -7°C is colder than 0°C .
So, -7 $<$ 0 .

b 7°C is warmer than 0°C .
So, 7 $>$ 0 .

Read your statements to a partner and compare your answers.
Did you get the same answer?

How can you order the temperatures in **a** and **b**?
Arrange them from the coldest to the warmest.



What are the characteristics of these numbers? Explain how you classify them.



Note: numbers increase on the positive side of the number line the further they are from zero but decrease on the negative side the further they are from zero.
Neutral is in the middle and is neither positive nor negative.

Let's Practise

1 Complete the following.

Student's Book p.33

a $-4 < \underline{\hspace{1cm}} -3$

b $-5 > \underline{\hspace{1cm}} -6$

c $-12 < \underline{-10}$

d $-10 > \underline{-11}$

How do you remember the symbols? Share it with your partner



2 Order the numbers from smallest to largest.

-72 58 -18 -10 35 19
 -72 -18 -10 0 19 35 58

Where would you place 0? Explain to your partner by drawing a number line. Show how you classify and order the numbers.



- 3 Arrange the temperatures in order. Estimate and mark them on the number line.

Student's Book p.33

5°C

-15 °C

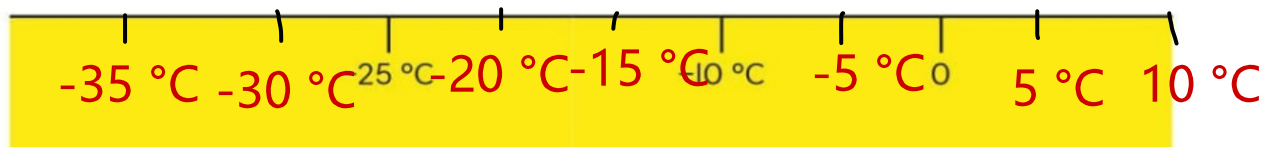
10°C

-20 °C

-30 °C

-35°C

-5°C



Which is the warmest? Which is the coldest? Compare with a partner. Whose guess is the closest? Improve your guess.

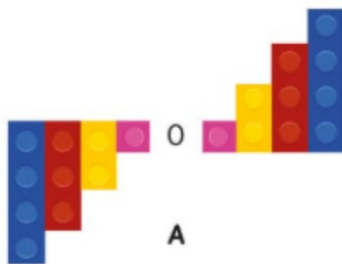
-35 , -30 , -20 , -15 , -5 , 5 , 10

10 °C is the warmest and -35 °C is the coldest.



4 Hazeem showed negative numbers in four different ways.

Student's Book p.34



A

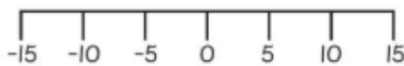


B

The one in A has positive bricks that go upwards and negative bricks that go downwards.

B is a horizontal number line that is in jumps of 1 but C is in jumps of five.

D is vertical and is jumps of two and there are no positive numbers.



C



D

What is the same and what is different in the four ways? How does each way help you to understand comparing and ordering negative and positive numbers? Can you think of an easier way? Explain it to a partner.

Tick (✓) to show what you can do.

☐

I can compare positive and negative numbers using symbols.

☐

I can order positive and negative numbers.