

Diving into Mastery



# Negative Numbers

twinkl



Beccie is watching the weather forecast.

In Antarctica, it is  $-12^{\circ}\text{C}$  and in Sweden, it is  $-3^{\circ}\text{C}$ .

Beccie says it is warmer in Antarctica because 12 is greater than 3.

**Why is Beccie incorrect?**







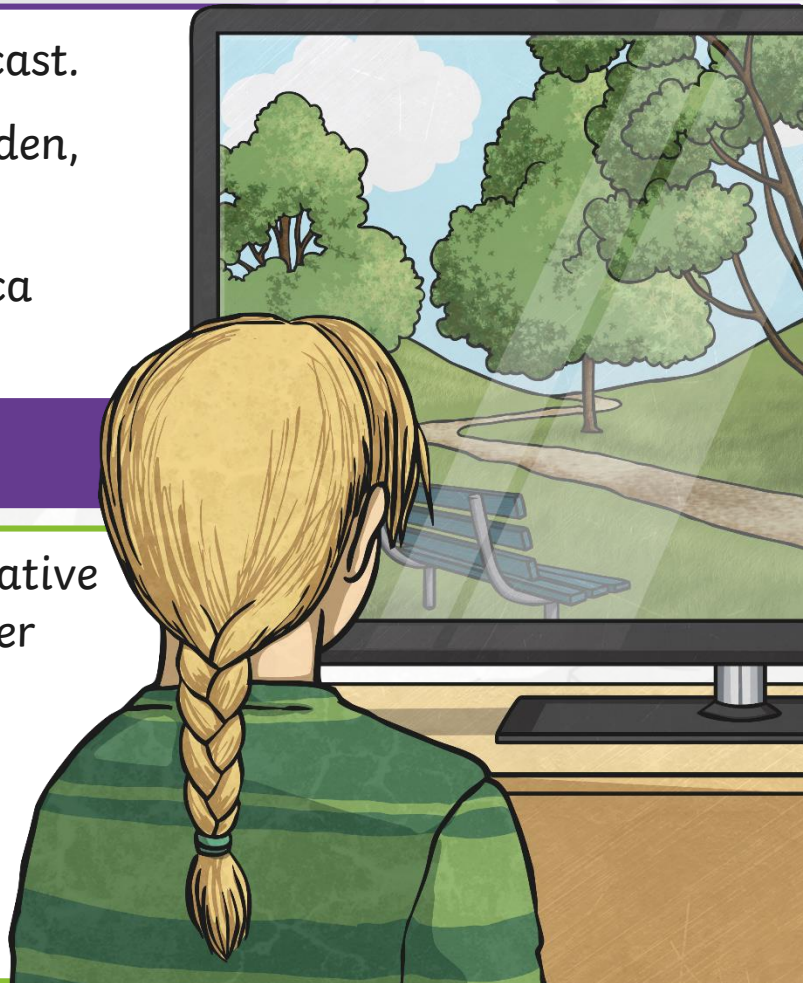
Beccie is watching the weather forecast.

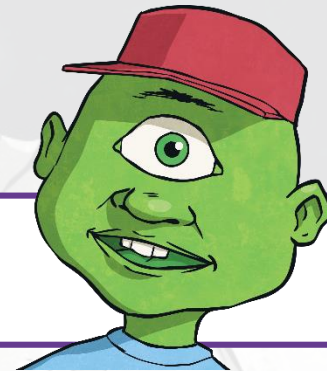
In Antarctica, it is  $-12^{\circ}\text{C}$  and in Sweden, it is  $-3^{\circ}\text{C}$ .

Beccie says it is warmer in Antarctica because 12 is greater than 3.

### Why is Beccie incorrect?

Beccie is incorrect because, with negative numbers, as you move in steps further away from zero, the digits increase but, in fact, the number is getting smaller.  $-12$  is further away from zero than  $-3$  and is therefore colder in terms of temperature.





This alien recorded the temperature on their home planet at the same time every day for a week.

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Temperature	-13°C	-4°C	2°C	-10°C	-5°C	1°C	-19°C

Are these statements true or false? Prove it!

1 Monday was 6°C colder than Sunday.

2 Wednesday was the warmest day.

3 Friday was warmer than Tuesday.



This alien recorded the temperature on their home planet at the same time every day for a week.

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Temperature	-13°C	-4°C	2°C	-10°C	-5°C	1°C	-19°C

Are these statements true or false? Prove it!

1 Monday was 6°C colder than Sunday.

**False**

The difference between -13 and -19 is 6 but it was 6°C warmer.

2 Wednesday was the warmest day.

**True**

2°C is the warmest temperature.

3 Friday was warmer than Tuesday.

**False**

-5 is less than -4 and therefore Friday was 1°C colder than Tuesday.

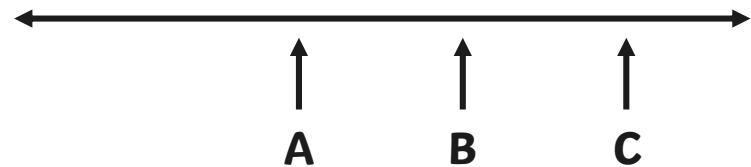




Here is a number line. Each arrow is the position of a number.

C is a negative number  
between -4 and -10.

B is 5 less than C.



What could the values of B and C  
be? Find all possibilities.

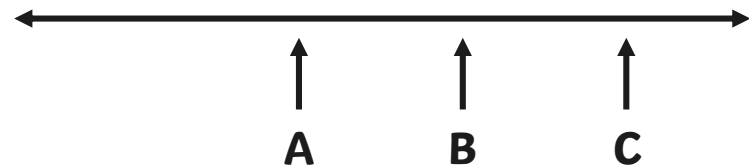
A is 12 less than B. What could A  
be? Find all possibilities.



Here is a number line. Each arrow is the position of a number.

C is a negative number between -4 and -10.

B is 5 less than C.



What could the values of B and C be? Find all possibilities.

If  $C = -5$ ,  $B = -10$ .  
If  $C = -6$ ,  $B = -11$ .  
If  $C = -7$ ,  $B = -12$ .  
If  $C = -8$ ,  $B = -13$ .  
If  $C = -9$ ,  $B = -14$ .

A is 12 less than B. What could A be? Find all possibilities.

Where  $B = -10$ ,  $A = -22$ .  
Where  $B = -11$ ,  $A = -23$ .  
Where  $B = -12$ ,  $A = -24$ .  
Where  $B = -13$ ,  $A = -25$ .  
Where  $B = -14$ ,  $A = -26$ .

## Negative Numbers

## Deepest



Each alien has started from the number on their T-shirt and worked their way up the maze to the finish line.

You can move horizontally, vertically or diagonally.

Finish							
-27	-28	-22	-21	-28	-31	-31	-29
-24	-19	-19	-21	-23	-12	-28	-25
-16	-20	-17	-13	-17	-23	-22	-8
-13	-16	-12	-15	-4	-16	-4	-16
-15	-10	-17	-8	-13	0	-13	-10
-2	-7	-7	8	-11	-9	4	-8
-4	-3	-9	-5	-7	8	-6	-6
-1	15	-6	-3	12	-15	-4	7
Start							

Look for numbers counting backwards in steps of 4.



Look for numbers counting backwards in steps of 3.

