

0



Negative Numbers

Learning Intention

- To be able to use negative numbers in context and calculate intervals across zero.

Success Criteria

- I can use negative numbers.

Negative Numbers

Match the answer to these statements to the correct place on the number line.

What is 12 less than 5?

-7

$$-10 + 14 =$$

4

What is 17 taken from 7?

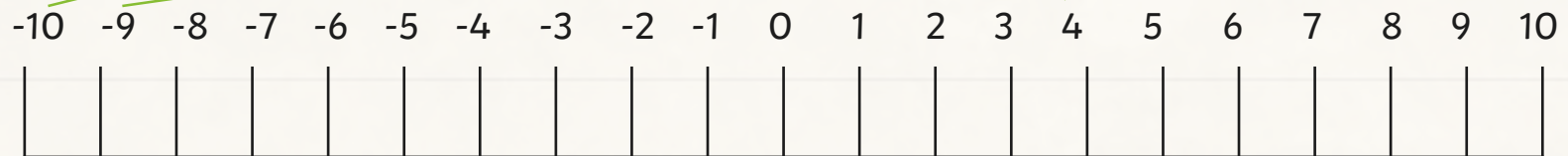
-10

$$\text{Add 9 to } -8 =$$

1

$$2 - 11 =$$

-9



Negative Numbers

I have $-\$26$ in my bank account. I put $\$35$ into my bank account. What is my new balance?

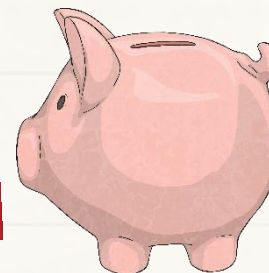
$\$9$

My bank account has $\$8$ in it. I spend $\$19$. What is my new bank account balance?

$-\$11$

I spend $\$45$ on a new game. The balance in my bank account is now $-\$12$. How much money did I have in my account before I bought the game?

$\$33$



Negative Numbers

This table shows how the temperature changed on four different streets around the world. Complete the table to show how the temperatures changed over three months.

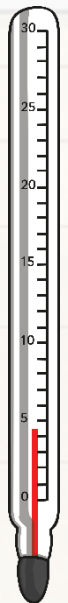
Town	October	Temperature change	November	Temperature Change	December
Study Street	13°C	-10°C	3°C	-7°C	-4°C
Reasoning Road	-1°C	+5°C	4°C	-6°C	-2°C
Problem-Solving Place	-5.5°C	+13°C	7.5°C	-19°C	-11.5°C

Negative Numbers

Miriam has found the minimum and maximum average temperatures for four countries around the world. She has calculated the temperature range for each country.

Can you identify her mistakes and correct them?

Country	Average Minimum Temperature	Average Maximum Temperature	Average Temperature Range
Canada	-29°C	15°C	44°C
China	-12°C	21°C	Correct
Sweden	-16.6°C	17.9°C	34.5°C

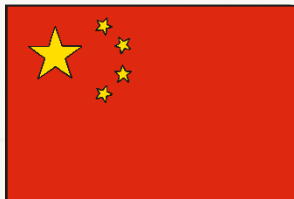


Negative Numbers

Country	Average Minimum Temperature	Average Maximum Temperature	Average Temperature Range
Canada	-29°C	15°C	44°C
China	-12°C	21°C	33°C
Sweden	-16.6°C	17.9°C	34.5°C

Using the table, explain whether the following statements are true or false.

- 1) **True. From the coldest to warmest temperature, the order would be: Canada (-28.7°C), Sweden (-16.6°C) and China (-11.7°C).**
- 2) **False. The difference between -29°C and 21°C is 50°C. This is greater than 40°C.**



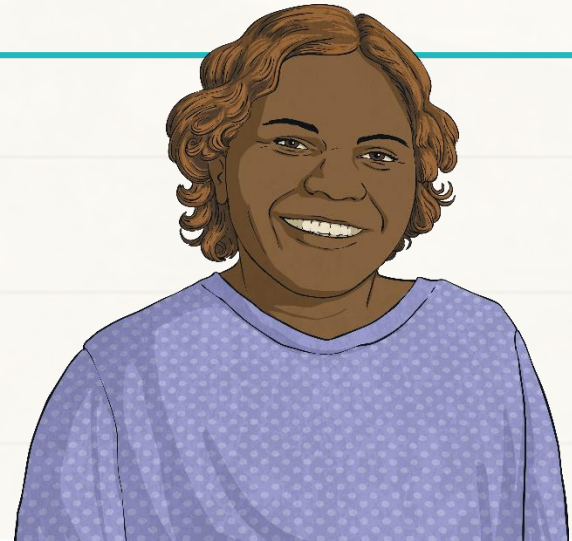
Negative Numbers

An explorer was investigating a deep crater.

On day one, she travelled -5.6m down the crater. On day two, she travelled a further -4.8m down the crater. On day three, she travelled 6.8m back up the crater to collect some more supplies. On day four, she travelled another -9.7m back down the crater. On day five, she travelled all the way back up to the top of the crater to return to the surface.

How far did she need to travel on day five to return to the surface?

13.3m



Negative Numbers



= a positive or negative number

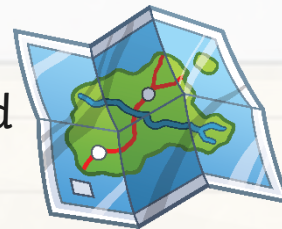


= a positive or negative number

Investigate the possible values of



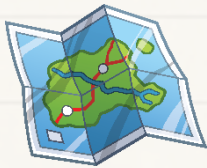
and



if:



+



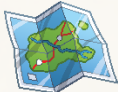
= 20

Can you use any decimal numbers to make 20?

You may have many different answers. For example:



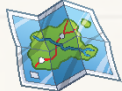
= -10



= 30 so $-10 + 30 = 20$



= -5.5



= 25.5 so $-5.5 + 25.5 = 20$

