

Reasoning and Problem Solving

Step 13: Negative Numbers

National Curriculum Objectives:

Mathematics Year 4: (4N5) [Count backwards through zero to include negative numbers](#)

Mathematics Year 4: (4N6) [Solve number and practical problems that involve 4N1 - 4N5 and with increasingly large positive numbers](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Determine which sequence of numbers is incorrect. Using knowledge of positive and negative numbers to -10. Including number lines and thermometers with single increments and some varied scales, all values marked.

Expected Determine which sequence of numbers is incorrect. Using knowledge of positive and negative numbers to -25. Including number lines and thermometers with varied increments and some missing values.

Greater Depth Determine which sequence of numbers is incorrect. Using knowledge of positive and negative numbers to -25. Including number lines and thermometers with some values given and where some numbers fall between increments.

Questions 2, 5 and 8 (Problem Solving)

Developing Use statements to find a missing number. Using knowledge of positive and negative numbers to -10. Including number lines and thermometers with single increments and some varied scales, all values marked.

Expected Use statements to find a missing number. Using knowledge of positive and negative numbers to -25. Including number lines and thermometers with varied increments and some missing values.

Greater Depth Use statements to find a missing number. Using knowledge of positive and negative numbers to -25. Including number lines and thermometers with some values given and where some numbers fall between increments.

Questions 3, 6 and 9 (Reasoning)

Developing Compare two temperatures using knowledge of positive and negative numbers to -10. Including number lines and thermometers with single increments and some varied scales, all values marked.

Expected Compare two temperatures using knowledge of positive and negative numbers to -25. Including number lines and thermometers with varied increments and some missing values.

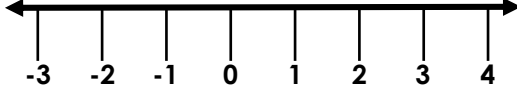
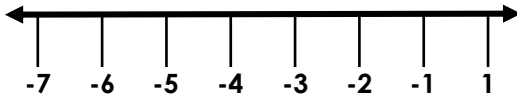
Greater Depth Compare two temperatures using knowledge of positive and negative numbers to -25. Using knowledge of positive and negative numbers to -25. Including number lines and thermometers with some values given and where some numbers fall between increments.

More [Year 4 Place Value](#) resources

Did you like this resource? Don't forget to [review](#) it on our website.

Negative Numbers

1a. Three children are counting using number lines.



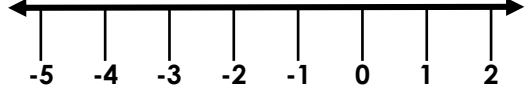
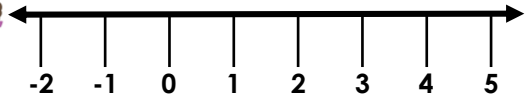
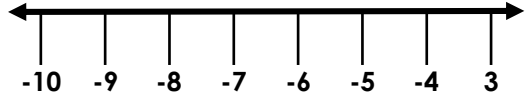
Are they correct? Explain how you know.



R

Negative Numbers

1b. Three children are counting using number lines.



Are they correct? Explain how you know.

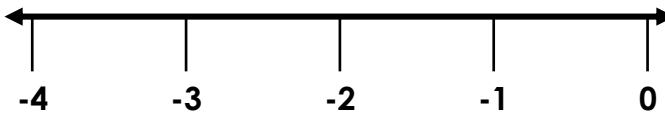


R

2a. What's my number?

My number is between 0 and -4.
It is an odd number.
It is not -3.

Use the number line to help you.

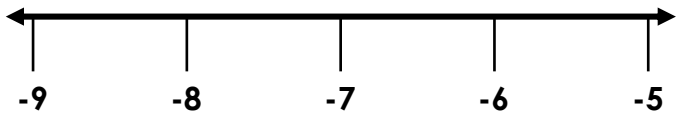


PS

2b. What's my number?

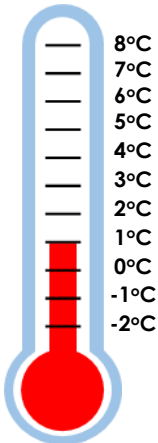
My number is between -5 and -9.
It is an even number.
It is not -6.

Use the number line to help you.

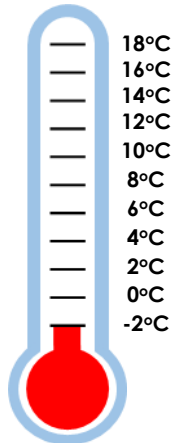


PS

3a. Which city is cooler? Explain how you know.



Venice

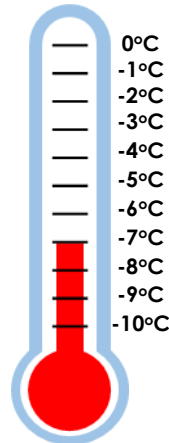


Boston

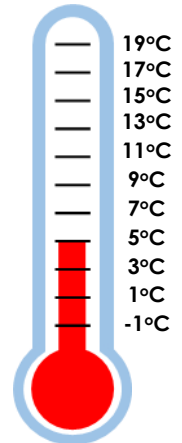


R

3b. Which city is cooler? Explain how you know.



Kingston



London



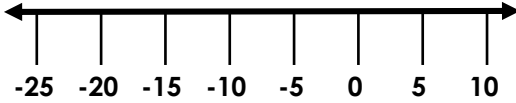
R

Negative Numbers

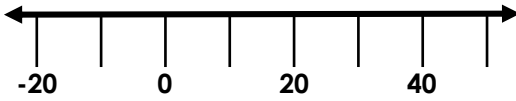
4a. Three children are counting in sequences using number lines.



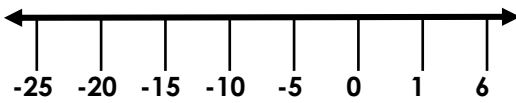
Anna



Pete



Dot



Are they correct? Explain how you know.



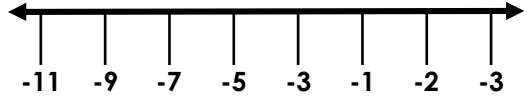
R

Negative Numbers

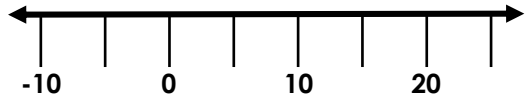
4b. Three children are counting in sequences using number lines.



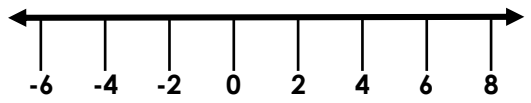
Ted



Jon



Mara



Are they correct? Explain how you know.

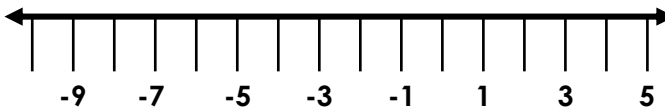


R

5a. What's my number?

My number is between 5 and -10.
It is an even number.
It is a negative number.
It is closer to zero than it is to -5.

Use the number line to help you.

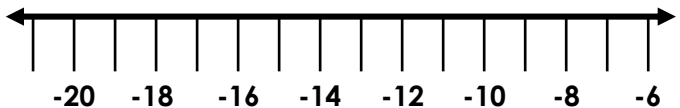


PS

5b. What's my number?

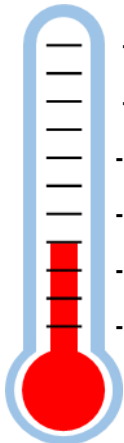
My number is between -5 and -20.
It is a multiple of 5.
It is a negative number less than -10.
It is an odd number.

Use the number line to help you.

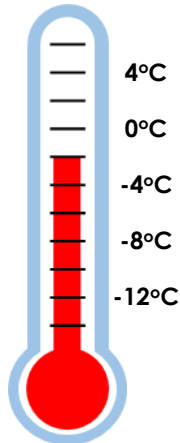


PS

6a. Which city is cooler? Explain how you know.



Toronto

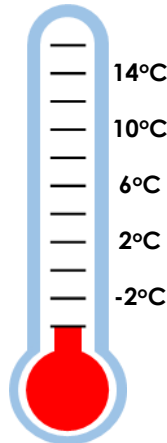


Aberdeen

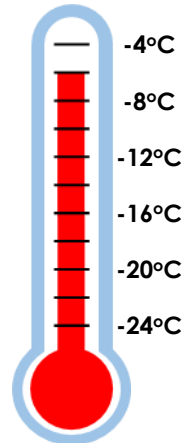


R

6b. Which city is cooler? Explain how you know.



Oslo



Ottawa



R

Negative Numbers

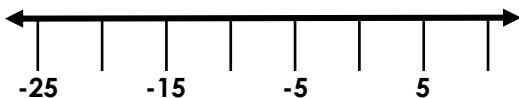
7a. Three children are counting in sequences using number lines.



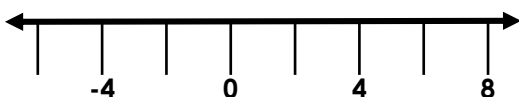
Alfie



Kobi



Mia



Are they correct? Explain how you know.



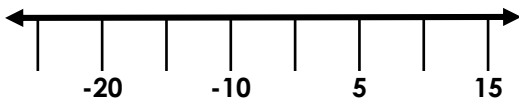
R

Negative Numbers

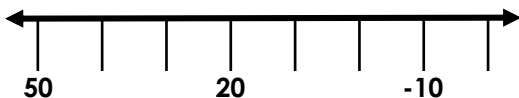
7b. Three children are counting in sequences using number lines.



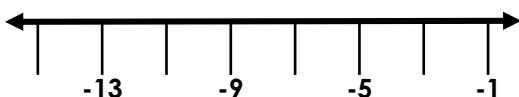
Mara



Alyssa



Anai



Are they correct? Explain how you know.

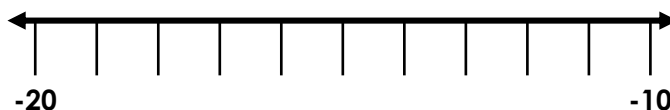


R

8a. What's my number?

My number is a negative number.
It is between -10 and -20.
It is an odd number.
It is a multiple of 5.

Use the number line to help you.

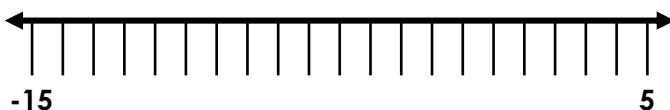


PS

8b. What's my number?

My number is between 5 and -15.
It is a negative number.
It is an even number.
It is 15 less than 5.

Use the number line to help you.

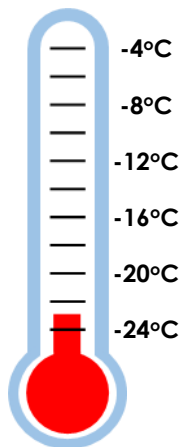


PS

9a. Which city is cooler? Explain how you know.



Munich

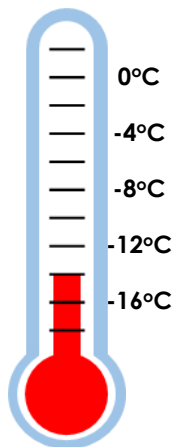


Fairbanks

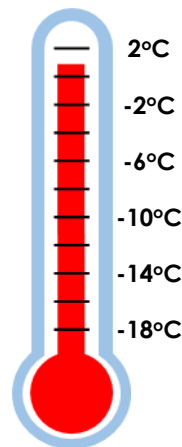


R

9b. Which city is cooler? Explain how you know.



Banff



Bergen



R

Reasoning and Problem Solving Negative Numbers

Developing

- 1a. Reuben is incorrect because he has not counted forward one from -1.
2a. -1
3a. Boston because -2°C is less than 1°C

Expected

- 4a. Dot is incorrect because she has not counted back five from 1.
5a. -2
6a. Toronto because -16°C is less than -2°C

Greater Depth

- 7a. Alfie is incorrect because he has not counted back four from 16.
8a. -15
9a. Fairbanks because -23°C is less than 2°C

Reasoning and Problem Solving Negative Numbers

Developing

- 1b. Kobi is incorrect because he has not counted forward one from -4.
2b. -8
3b. Kingston because -7°C is less than 5°C

Expected

- 4b. Ted is incorrect because he has not counted back two from -1.
5b. -15
6b. Ottawa because -6°C is less than -4°C

Greater Depth

- 7b. Mara is incorrect because she has not counted forwards five from -5.
8b. -10
9b. Banff because -14°C is less than 1°C