

Interpret a comparison of two negative numbers

NAME	DATE	SCORE / 10
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1 At noon it is -13°C where Ana lives and -11°C where Ben lives. So $-11 > -13$. What does this tell you?

- ☐ It is colder where Ben lives than where Ana lives
- ☐ It is the same temperature where Ben and Ana live
- ☐ It is warmer where Ben lives than where Ana lives

2 Ivy's bank balance is $-\$17$. Leo's bank balance is $-\$8$. So $-8 > -17$. Explain what this tells you about the money Ivy and Leo owe.

3 At noon it is -12°C where Ben lives and -4°C where Ana lives. So $-12 < -4$. What does this tell you?

- ☐ It is the same temperature where Ben and Ana live
- ☐ It is colder where Ben lives than where Ana lives
- ☐ It is warmer where Ben lives than where Ana lives

- 4** Noah dives to -8 metres and Ana dives to -6 metres, below sea level. So $-6 > -8$. Explain what this tells you about the two dives.

- 5** Maya's bank balance is $-\$12$. Ana's bank balance is $-\$10$. So $-10 > -12$. What does this tell you?

- ☐ Ana has money in the bank and Maya does not ☐ Ana owes more money than Maya
☐ Ana owes less money than Maya

- 6** Ana dives to -9 metres and Leo dives to -6 metres, below sea level. So $-6 > -9$. Explain what this tells you about the two dives.

- 7** Ana dives to -6 metres and Maya dives to -2 metres, below sea level. So $-2 > -6$. What does this tell you?

- ☐ Maya is deeper than Ana ☐ Maya is nearer the surface than Ana
☐ Maya is above sea level

8

At noon it is -10°C where Noah lives and -6°C where Ben lives. So $-6 > -10$. Explain what this tells you about the two places.

9

At noon it is -14°C where Ben lives and -2°C where Ivy lives. So $-14 < -2$. What does this tell you?

- ☐ It is colder where Ben lives than where Ivy lives
- ☐ It is the same temperature where Ben and Ivy live
- ☐ It is warmer where Ben lives than where Ivy lives

10

Ben dives to -17 metres and Maya dives to -6 metres, below sea level. So $-6 > -17$. Explain what this tells you about the two dives.

Interpret a comparison of two negative numbers

1 It is warmer where Ben lives than where Ana lives

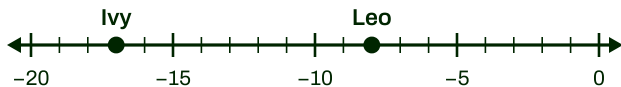
3 It is colder where Ben lives than where Ana lives

5 Ana owes less money than Maya

7 Maya is nearer the surface than Ana

9 It is colder where Ben lives than where Ivy lives

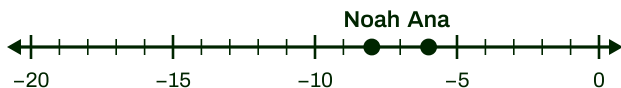
2 A written explanation



A model answer: Leo owes less money than Ivy: Leo owes \$8 and Ivy owes \$17. -8 is greater than -17 because it is nearer 0: it sits to the right of -17 on a number line. A balance nearer \$0 is a smaller debt.

What counts as right: Counts as right if it makes these points: (1) Leo owes less than Ivy, or Ivy owes more than Leo; (2) the greater balance is the one nearer \$0, so it is the smaller debt. Saying Leo owes more does not count.

4 A written explanation



A model answer: Ana is not as deep as Noah: Ana is 6 metres below sea level and Noah is 8 metres below. -6 is greater than -8 because it is nearer 0: it sits to the right of -8 on a number line. A greater number here is nearer the surface.

What counts as right: Counts as right if it makes these points: (1) Ana is nearer the surface, or Noah dives deeper; (2) the greater number is the one nearer 0, which is sea level. Saying Ana dives deeper, by reading 8 and 6 without their signs, does not count.

6 A written explanation



A model answer: Leo is not as deep as Ana: Leo is 6 metres below sea level and Ana is 9 metres below. -6 is greater than -9 because it is nearer 0: it sits to the right of -9 on a number line. A greater number here is nearer the surface.

What counts as right: Counts as right if it makes these points: (1) Leo is nearer the surface, or Ana dives deeper; (2) the greater number is the one nearer 0, which is sea level. Saying Leo dives deeper, by reading 9 and 6 without their signs, does not count.

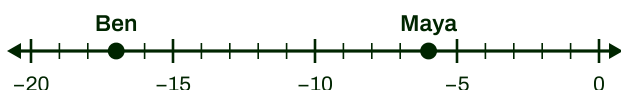
8 A written explanation



A model answer: It is warmer where Ben lives. -6 is greater than -10 because it is nearer 0: it sits to the right of -10 on a number line. A greater temperature is a warmer one, so -6°C is 4 degrees warmer than -10°C .

What counts as right: Counts as right if it makes these points: (1) it is warmer where Ben lives, or colder where Noah lives; (2) the greater number is the one nearer 0, so it is the higher temperature. Saying it is colder where Ben lives, because 6 is less than 10, does not count.

10 A written explanation



A model answer: Maya is not as deep as Ben: Maya is 6 metres below sea level and Ben is 17 metres below. -6 is greater than -17 because it is nearer 0: it sits to the right of -17 on a number line. A greater number here is nearer the surface.

What counts as right: Counts as right if it makes these points: (1) Maya is nearer the surface, or Ben dives deeper; (2) the greater number is the one nearer 0, which is sea level. Saying Maya dives deeper, by reading 17 and 6 without their signs, does not count.