**Negative Numbers**

**A** Continue these sequences, use the number line to help!

1. -7, -6, -5, -4, -3, -2, -1, 0, 1
2. 4, 3, 2, 1, 0, -1, -2, -3
3. -6, -4, -2, 0, 2, 4
4. -9, -6, -3, 0, 3, 6, 9
5. -11, -6, -1, 4, 9, 14
6. -10, -8, -6, -4, -2, 0, 2
7. 1, 0, -1, -2 , -3, -4, -5
8. 4, 2, 0, -2, -4, -6, -8
9. 0, -5, -10, -15, -20, -25



 B Put these numbers in **ascending** order:

1. 1, 3, -3, -5, -7
2. -8, -3, 9, -7, 4
3. -11, 3, 7, -4, -8
4. -8, -2, 0, -12, 5
5. 8, -5, 15, -9, -12

C Put these numbers in **descending** order:

1. -7, 3, 6, -3, 2
2. 0, -6, 2, 8, -3
3. 2, 0, -7, -2, 9
4. 1, -7, 8, -11, 10
5. -14, 8, 15, -15, 7

D Put the correct symbol (< or >) between the two numbers:

1. -1 ? 7
2. 6 ? 2
3. -6 ? 0
4. 5 ? -2
5. -13 ? -3

E Write down which numbers could be

 included for these:

1. x > 9 5) x >10
2. x ≤ 8 6) x ≤ 7
3. x ≥ −1 7) x ≥ 0
4. x < 0 8) x < -1

F Try these, you can use a number line to help you

1. −2 + 3 = 6) −3 + 4 =
2. 3 − 8 = 7) 4 − 7 =
3. −5 + 5 = 8) −6 + 4 =
4. 1 − 3 = 9) 0 − 2 =
5. −2 − 6 = 10) −1 − 4 =

G Try these, you can use a number line to help you

1. 14 – 25 5)-11 + 21
2. 2 – 19 6) 15 – 17
3. -8 +12 7) 5 - 16
4. -5 + 3 8) 9 - 14

H Try these, you can use your number line to help you

1. 5 + −6 = 9) 0 − −4
2. 0 + −3 = 10) −7 − −6 =
3. −1 + −2 = 11) 6 + −5 =
4. 6 + −4 = 12) −1 + −4 =
5. 9 + −12 = 13) 0 + −3 =
6. 3 − −3 = 14) 5 + −2 =
7. 2 − −9 = 15) 10 + −15 =
8. −1 − −5 = 16) 0 − −4
9. 2 − −3 = 17) −1 − −6
10. 1 − −8 = 18) −6 − −9 =

J Try these, remember the rules about

 multiplying with negative numbers:

1. 5 x −2 = 6) 4 x −3 =
2. −6 x 3 = 7) −7 x 4 =
3. 4 x 7 = 8) 3 x 8 =
4. −3 x −7 = 9) −4 x −6 =
5. −1 x 4 x −3 10) −2 x 3 x −5

K Try these:

1. 15 ÷ −3 = 6) 16 ÷ −8 =
2. −70 ÷ 10 = 7) −72 ÷ 9 =
3. 28 ÷ 4 = 8) 27 ÷ 3 =
4. −56 ÷ −7 = 9) −49 ÷ −7 =
5. 60 ÷ −3 ÷ − 5 = 10) 48 ÷ −2 ÷ − 4 =

L Try these:

1. 6 – 2 = 11) -25 ÷ 5 =
2. 5 – 11 = 12) -6 + - 3 =
3. -2 x -3 = 13) -6 x -7 =
4. 5 x -6 = 14) 36 ÷ 9 =
5. -2 – 4= 15) 18 – 32 =
6. 3 + - 6 = 16) 50 ÷ - 5 =
7. -2 – 6 = 17) – 5 + - 4 =
8. 18 ÷ -3 = 18) -17 – 8 =
9. 5 – 9 = 19) 3 x -2 =

10) -5 - - 7 = 20) -7 x -5 =

Negative Number Questions

 Midday temperatures in different towns are shown below:

 Axminster -6 °C

 Bodmin 10 °C

 Canford -1 °C

 Dunster 3 °C

 Eeetown -3 °C

1. Which town has the highest temperature?
2. Which town has the lowest temperature?
3. What is the difference in temperature between Canford and Bodmin?
4. How much warmer in °C is Dunster than Eetown?
5. How much colder in °C is Axminster than Canford?
6. Next day, the temperature in Dunster has decreased by 6°C. What is its temperature after the decrease?
7. The temperature in Fintown is 10°C warmer than Axminster. What is the temperature in Fintown?
8. The temperature in Jeetown is 7°C colder than in Bodmin what is the temperature in Jeetown?

**Level 1**

1.) Susan had £5 in the bank. She spent £10 on shoes. By how much was she overdrawn?

2.) At 6am, the temperature in Eastbourne was -2°C. By 2pm it had risen by 6°C. What was the temperature in Eastbourne now?

3.) How much debt would I be in if I spent £15 but only have £10 in the bank?

4.) If it is -20°C in Canada and 10°C in Australia, what is the difference in temperature?

5.) Jessica was given £20 for her birthday. She bought a pair of shoes for £25. How much debt was she in?

6.) Reece’s house had a temperature of 12°C. He put the heating on and the temperature rose by 8°C. What was the temperature in the house now?

7.) Mr and Mrs Smith had £18 in their bank account. At the end of the month they had to pay three bills. Their telephone bill was £6, their gas bill was £5 and their electricity bill was £9. How much debt were Mr and Mrs Smith in?

9.) Martin had £50 in the bank. He had to spend £54 on his car. What was the total of his debt?

10.) Rebecca made a cup of tea with a temperature of 90°C. She left it to cool, but forgot about it for 20 minutes, which meant that its temperature dropped by 40°C. She decided to reheat her tea in the microwave which increased its temperature by 20°C, and then she drank it. How hot was her tea at the point of drinking?

11.) Midday temperatures in different towns are shown below:

 A town -4 °C

 B town 5 °C

 C town - 3 °C

 D town - 6 °C

 E town 6 °C

1. Which town has the highest temperature?
2. Which town has the lowest temperature?
3. What is the difference in temperature between C Town and B town?
4. How much warmer in °C is E town than D town?
5. How much colder in °C is D town than A town?
6. Next day, the temperature in E town has decreased by 7°C. What is its temperature after the decrease?
7. The temperature in F town is 10°C warmer than A town. What is the temperature in F town?

The temperature in J town is 7°C colder than in B town what is the temperature in J town?

**Level 2**

1.) Susan had £40 in the bank. She spent £65 on shoes. By how much was she overdrawn?

2.) At 6am, the temperature in Eastbourne was -2°C. By 2pm it had risen by 6°C. What was the temperature in Eastbourne now?

3.) How much debt would I be in if I spent £35 but only have £28 in the bank?

4.) If it is -26°C in Canada and 34°C in Australia, what is the difference in temperature?

5.) Jessica was given £80 for her birthday. She bought a pair of shoes for £55 and a pair of jeans for £43. How much debt was she in?

6.) Reece’s house had a temperature of 12°C. He put the heating on and the temperature rose by 8°C. As he was still cold, Reece decided to light a fire which increased the temperature by a further 13°C. What was the temperature in the house now?

7.) Mr and Mrs Smith had £367 in their bank account. At the end of the month they had to pay three bills. Their telephone bill was £96, their gas bill was £203 and their electricity bill was £145. How much would Mr and Mrs Smith need to pay into their account to clear their overdraft?

8) Martin was £56 overdrawn. He had to spend £234 on his car. What was the total of his debt now?

9.) Rebecca made a cup of tea with a temperature of 90°C. She left it to cool, but forgot about it for 20 minutes, which meant that its temperature dropped by 74°C. She decided to reheat her tea in the microwave which increased its temperature by 58°C, and then she drank it. How hot was her tea at the point of drinking?

**Negative Number Questions**

1. Midday temperatures in different cities are shown below:

|  |  |
| --- | --- |
| **Cities** | **°C** |
| Liverpool | - 8 |
| London | 6 |
| Glasgow | -10 |
| Cardiff | 4 |
| Nottingham | 2 |

1. Which city has the highest temperature?
2. Which city has the lowest temperature?
3. What is the difference in temperature between Glasgow and Cardiff?
4. How much warmer in °C is Cardiff than Liverpool?
5. How much colder in °C is Nottingham than London?
6. Next day, the temperature in Cardiff has decreased by 5°C. What is its temperature after the decrease?
7. The temperature in Cornwall is 10°C warmer than Liverpool. What is the temperature in Cornwall?
8. Overnight, the temperature in Nottingham decreases by 5°C. What is its new temperature?
9. The temperature in Birmingham is 5°C colder than in London. What is the temperature in Birmingham?
10. What is the difference in temperature between Liverpool and Nottingham?

**Level 3**

1.) Susan had £43 in the bank. She spent £65 on shoes. By how much was she overdrawn?

2.) At 6am, the temperature in Eastbourne was -2°C. By 2pm it had risen by 19°C. What was the temperature in Eastbourne now?

3.) How much debt would I be in if I spent £235 but only have £128 in the bank?

4.) If it is -26°C in Canada and 34°C in Australia, what is the difference in temperature?

5.) Jessica was given £80 for her birthday. She bought a pair of shoes for £59.50 and a pair of jeans for £43.20. How much debt was she in?

6.) Reece’s house had a temperature of 12°C. He put the heating on and the temperature rose by 8.4°C. As he was still cold, Reece decided to light a fire which increased the temperature by a further 13.8°C. What was the temperature in the house now?

7.) Mr and Mrs Smith had £367 in their bank account. At the end of the month they had to pay three bills. Their telephone bill was £96.40, their gas bill was £203.20 and their electricity bill was £145.30. How much would Mr and Mrs Smith need to pay into their account to clear their overdraft?

8.) Martin was £56.80 overdrawn. He had to spend £234.30 on his car. What was the total of his debt now?

9.) Rebecca made a cup of tea with a temperature of 90°C. She left it to cool, but forgot about it for 20 minutes, which meant that its temperature dropped by 74°C. She decided to reheat her tea in the microwave which increased its temperature by 58.7°C, and then she drank it. How hot was her tea at the point of drinking?

**Negative Number Questions**

1. Midday temperatures in different cities are shown below:

|  |  |
| --- | --- |
| **Cities** | **°C** |
| Liverpool | - 8 |
| London | 6 |
| Glasgow | -10 |
| Cardiff | 4 |
| Nottingham | 2 |

1. Which city has the highest temperature?
2. Which city has the lowest temperature?
3. What is the difference in temperature between Glasgow and Cardiff?
4. How much warmer in °C is Cardiff than Liverpool?
5. How much colder in °C is Nottingham than London?
6. Next day, the temperature in Cardiff has decreased by 5°C. What is its temperature after the decrease?
7. The temperature in Cornwall is 10°C warmer than Liverpool. What is the temperature in Cornwall?
8. Overnight, the temperature in Nottingham decreases by 5°C. What is its new temperature?
9. The temperature in Birmingham is 5°C colder than in London. What is the temperature in Birmingham?
10. What is the difference in temperature between Liverpool and Nottingham?

|  |
| --- |
| 1. The temperature on Tuesday is 5°C. On Wednesday it is 6 degrees colder.

What is the temperature on Wednesday?1. The temperature on Friday is -7°C. The following the day, the temperature rises by 9 degrees.

What is the temperature the following day?1. The temperature in London is -5°C. In Birmingham it is -8°C.

What is the difference between the 2 temperatures?1. What is 7 minus 11?
2. How many degrees more is 2°C than -2°C?
3. Increase -3 by 6.
4. What is 3 minus 10?
5. The temperature on Sunday is 4°C. The following day it drops by 11°C.

What is the temperature on the following day?1. The temperature is -9°C. If it is 8°C warmer on the following day, what will the temperature be?
2. The temperature is -6°C. The following day it is 9 degrees warmer.

What is the temperature on the following day? |
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