KS3 Maths: revision notes

Negative numbers

Contents

1. The number line
2. Adding and subtracting
3. Multiplying and dividing
4. Key terms
5. Quick questions
6. What to do next

The number line

- Numbers to the left on a **number line** are smaller: –5 is less than –2, which is less than 0.
- **Negative numbers** are used for temperatures below zero, bank overdrafts and depths below sea level.

Adding and subtracting

- Use a **number line**: 3 – 7 = –4, and –2 + 5 = 3, and –3 – 4 = –7.
- Subtracting a negative is the same as adding: 5 – (–2) = 5 + 2 = 7.
- Adding a negative is the same as subtracting: 6 + (–4) = 6 – 4 = 2.
- A temperature change from –6 °C to 4 °C is a rise of 10 °C.

Multiplying and dividing

- Two signs the same give a positive answer: –3 × –4 = 12, and –20 ÷ –5 = 4.
- Two different signs give a negative answer: 5 × –2 = –10, and –12 ÷ 3 = –4.
- Squaring a **negative number** gives a positive answer: $(-3)^2 = 9$. Cubing it gives a negative answer: $(-2)^3 = -8$.

Key terms

Negative number	A number less than zero.
Positive number	A number greater than zero.
Number line	A line showing numbers in order, used to add and subtract.
Integer	A whole number, which can be positive, negative or zero.
Difference	How far apart two numbers are.
Inverse	The opposite operation: subtracting undoes adding.

Your notes

Quick questions

Cover the answers and test yourself: remembering is what makes it stick.

1. What is 3 – 7?
2. What is –2 + 5?
3. What is –3 – 4?
4. What is 5 – (–2)?
5. What is –3 × –4?
6. What is –12 ÷ 3?
7. What is 5 × –2?
8. The temperature is –6 °C and it rises by 10 °C. What is the new temperature?

Answers

1. –4
2. 3
3. –7
4. 7
5. 12
6. –4
7. –10
8. 4 °C

What to do next

Practise 13 questions on this topic

Try 4 exam questions, with mark schemes

Read the lesson, one step at a time

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Your notes