Using the Inverse to Check Calculations

Adult Guidance with Question Prompts

Children check calculations using the inverse operation, both addition and subtraction. They decide if the original calculation is correct or not. They could use practical equipment such as base ten blocks, number lines, number shapes or cubes.

Is this an addition or subtraction calculation?

How can you tell if the calculation is correct?

What is the inverse of addition/subtraction?

How will you write the inverse?

How can you be sure the numbers are in the correct position?

Do you think the original calculation was correct? Why? Why not?

Who wrote the calculation?

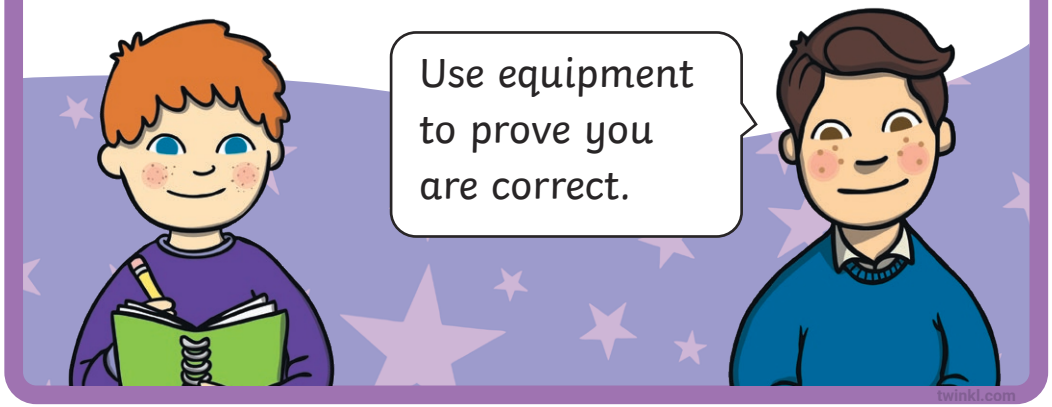
Can you use equipment to prove it?

What equipment will you use?

Using the Inverse to Check Calculations

Check these calculations. Who have they been written by? The first one has been done for you.

Calculation	Inverse	Charley Cheat	Honest Hamish
16 + 4 = 10	10 – 4 = 6	✓	
16 – 13 = 3			
12 – 11 = 1			
6 + 12 = 19			
15 – 7 = 8			
3 + 15 = 17			



Using the Inverse to Check Calculations

Adult Guidance with Question Prompts

Children check calculations using the inverse operation, both addition and subtraction. They reason about the inverse calculations chosen. Children explain whether they agree or not and why. They may want to use equipment to support themselves.

How can you tell if the calculation is correct?

What is the inverse of addition/subtraction?

Look at the inverse the Ethan has decided to use, do you think he's picked the right one? Why not?

Why won't it help him to add those numbers?

What numbers should he add?

Is there more than one way to check with addition?

What other addition calculation could he have used to check?

Can you show me with equipment?

Look at the Asma's calculations.

Has she picked two subtractions that she could use to check?

Why do you think that?

Which subtraction is a helpful one?

Why is the other not helpful?

What other subtraction could she have used?

Using the Inverse to Check Calculations

Ethan and Asma are trying to check calculations with the inverse operation.

To check

13 – 8 = 7

I can use

13 + 8

To check

9 + 6 = 15

I can use

15 – 6 or 9 – 6

Do you agree with them? Explain your ideas.

Using the Inverse to Check Calculations

Adult Guidance with Question Prompts

Children check calculations using the inverse operation, both addition and subtraction. In this activity, children use the inverse to check a calculation represented by a number line. They correct the calculation. Then they have a go at drawing more number lines and writing accompanying calculations for their friend to check.

What inverse could we write to prove Charley is wrong?

20 - 16 = 4 or 20 - 3 = 17

What did Charley do wrong?

Can you use the number line to find the correct answer?

Can you write the inverse operation to check your calculation?

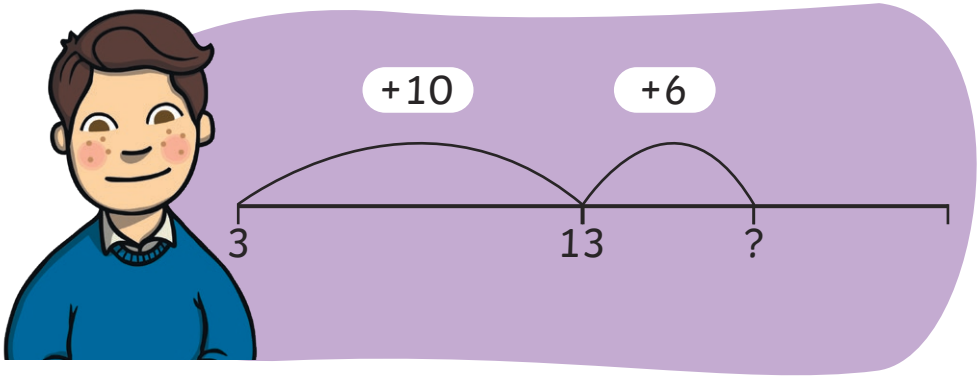
Can you draw a number line, write a matching calculation and then check it with the inverse?

Can you draw a number line and write a calculation for a friend to check?

You could put a deliberate mistake in to try to catch them out!

Using the Inverse to Check Calculations

Charley Cheat has written a calculation to go with this number line.



3 + 16 = 20

Use the inverse to prove that Charley has got the calculation wrong.

Correct his mistake and check with the inverse.

Draw a number line and write a matching calculation. Prove you are correct by using the inverse to check.

Now, draw a number line with a calculation for a friend to check.