## Year 2 Task:

Objective: Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.

Amy writes an answer to the calculation below.

$$
57-31=26
$$

Now write an addition to check Amy's answer.


Carrie says there are 2 more calculations that you can write using the numbers 57,31 and 26 . Is she correct? If you think she is, write them down.

Carrie thinks one of them is $31-57=26$.
What do you think? Explain you thinking.

Worked example:


The other two calculations would be:
$57-26=31$
$26+31=57$

Carrie would be wrong. Although you can do addition calculations in any order, this does not work for subtraction. For example, If you had 31 sweets, you couldn't take away 57 . It would help Carrie to read her calculation and think of it in a context (like the "sweets") and ask herself if that would work. The bar model also helps to remind us that the largest number (57) is "the whole", so we can only take away 31 to be left with 26 or take away 26 to be left with 31.

## Variation:

Can you check Carrie's work and see if she is correct? Make sure that for each bar model, there are two correct addition calculations and two correct subtraction calculations.

$63+22=85$
$21+63=85$
$85-63=22$
$22-63=85$

$16+10=27$
$10+16=27$
$27-11=16$
$11-16=27$

$42+49=42$
$7+42=49$
$49-7=42$
$42-49=7$

Here is another one for you to do. Work out the correct 4 calculations:

| $?$ |  |
| :---: | :---: |
| 48 | 18 |

## Solutions:

$63+22=85$
22+63 = 85 (Carrie got this wrong)
$85-63=22$
85

85-22 = 63 (She also got this one wrong)
$16+11=27$ (Carrie got this wrong)
$11+16=27$ (She also got this wrong)
$27-11=16$
27-16 = 11 (Carrie got this wrong too)
$42+7=49$ (Carrie made a mistake here!)
$7+42=49$
$49-7=42$


49-42 = $\mathbf{7}$ (She also made a mistake here)

$$
\begin{aligned}
& 48+18=66 \\
& 18+48=66 \\
& 66-48=18 \\
& 66-18=48
\end{aligned}
$$

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