

# Homework/Extension

## Step 10: Checking Strategies

### National Curriculum Objectives:

Mathematics Year 4: (4C2) [Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate](#)

Mathematics Year 4: (4C3) [Estimate and use inverse operations to check answers to a calculation](#)

Mathematics Year 4: (4C4) [Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why](#)

### Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

**Developing** True or false question to support using inverse operations to check addition and subtraction of up to two 4-digit numbers with no exchange. Most numbers used are multiples of ten.

**Expected** True or false question to support using inverse operations to check addition and subtraction of up to two 4-digit numbers with exchanges. Numerals only.

**Greater Depth** True or false question to support using inverse operations to check addition and subtraction of up to two 4-digit numbers with exchanges and where inefficient methods or representations have been used. Numerals and words.

Questions 2, 5 and 8 (Varied Fluency)

**Developing** Match a calculation to its inverse to support using inverse operations to check addition and subtraction of up to two 4-digit numbers with no exchange. Most numbers used are multiples of ten.

**Expected** Match a calculation to its inverse to support using inverse operations to check addition and subtraction of up to two 4-digit numbers with exchanges. Numerals only.

**Greater Depth** Match a calculation to its inverse to support using inverse operations to check addition and subtraction of up to two 4-digit numbers with exchanges and where inefficient methods or representations have been used. Numerals and words.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

**Developing** Select the correct statement to support using inverse operations to check addition and subtraction of up to two 4-digit numbers with no exchange. Most numbers used are multiples of ten.

**Expected** Select the correct statement to support using inverse operations to check addition and subtraction of up to two 4-digit numbers with exchanges. Numerals only.

**Greater Depth** Select the correct statement to support using inverse operations to check addition and subtraction of up to two 4-digit numbers with exchanges and where inefficient methods or representations have been used. Numerals and words.

More [Year 4 Addition and Subtraction](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

# classroomsecrets.co.uk

# Checking Strategies

1. True or false? Delacey can use calculation B to check the answer to  $2,250 + 2,320 = 4,570$ .

A.

|       |       |
|-------|-------|
| 4,750 |       |
| 2,320 | 2,520 |

B.

|   |   |   |   |   |
|---|---|---|---|---|
|   | 4 | 5 | 7 | 0 |
| - | 2 | 3 | 2 | 0 |
|   | 2 | 2 | 0 | 0 |

C.

|   |   |   |   |   |
|---|---|---|---|---|
|   | 2 | 2 | 5 | 0 |
| - | 2 | 3 | 2 | 0 |
|   | 4 | 7 | 5 | 0 |



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2. Match the calculation to its inverse.

A.  $2,700 + 4,280 = 6,980$

D.  $9,690 = 5,220 + 4,470$

B.  $9,690 - 5,220 = 4,470$

E.  $6,980 - 2,700 = 4,280$

C.  $3,527 = 1,818 + 1,709$

F.  $3,527 - 1,818 = 1,709$



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3. Charlie and Sheena are discussing how they would check the following calculation using the inverse.

|   |   |   |   |   |
|---|---|---|---|---|
|   | 5 | 5 | 0 | 0 |
| + | 1 | 2 | 6 | 5 |
|   | 6 | 7 | 6 | 5 |

A.  $1,265 + 5,500 = 6,760$

B.  $6,765 - 5,500 = 1,265$

I would use B because subtraction is the inverse of addition so I can try a different method.



I would use A because I have reordered the addition and added them again to find the answer.



Who do you agree with? Explain why.

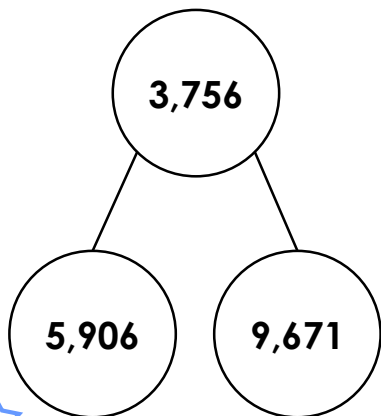


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HW/Ext

# Checking Strategies

4. True or false? Mildred can use calculation B to check the answer to  $3,756 + 5,906 = 9,671$ .

A.



B.

|   |   |   |   |   |
|---|---|---|---|---|
|   | 5 | 9 | 0 | 6 |
| - | 3 | 7 | 6 | 5 |
|   | 9 | 6 | 7 | 1 |

C.

|   |                |                |                |                |
|---|----------------|----------------|----------------|----------------|
|   | <sup>8</sup> 9 | <sup>1</sup> 6 | <sup>6</sup> 7 | <sup>1</sup> 1 |
| - | 3              | 7              | 6              | 5              |
|   | 5              | 9              | 0              | 6              |



VF  
HW/Ext

5. Match the calculation to its inverse.

A.  $4,812 + 1,946 = 6,758$

D.  $3,473 + 4,152 = 7,625$

B.  $7,625 - 4,152 = 3,473$

E.  $3,445 = 5,655 - 2,210$

C.  $5,655 = 2,210 + 3,445$

F.  $6,758 - 1,946 = 4,812$



VF  
HW/Ext

6. George and Samira are discussing how they would check the following calculation using the inverse.

|   |   |   |   |   |
|---|---|---|---|---|
|   | 6 | 5 | 2 | 1 |
| + | 2 | 4 | 5 | 5 |
|   | 8 | 9 | 7 | 6 |

A.  $8,967 = 6,521 - 2,455$

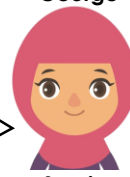
B.  $8,976 - 2,455 = 6,521$

I would use A because the two smallest numbers must equal the larger one.



George

I would use B because I can find one of the parts by subtracting the other part from the whole.



Samira

Who do you agree with? Explain why.

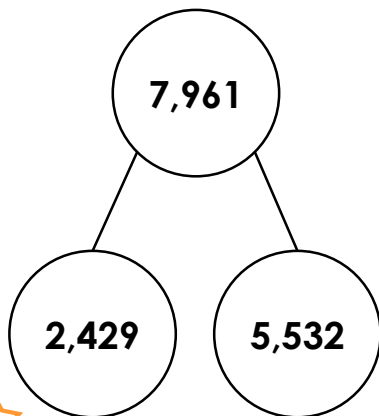


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# Checking Strategies

7. True or false? Sundeep can use calculation C to check the answer to  $7,961 - 2,429 = 5,532$ .

A.



B.

|  |       |
|--|-------|
| Seven thousand, nine hundred and sixty-one |       |
| 2,429                                      | 5,532 |

C.

|   |   |   |   |   |
|---|---|---|---|---|
|   | 5 | 5 | 3 | 0 |
| - | 2 | 4 | 2 | 9 |
|   | 7 | 9 | 6 | 1 |



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8. Match the calculation to its inverse.

A.  $9,406 - 1,562$

B.  $1,562 + 7,843$

C.  $9,406 - 7,843$

D.

Nine thousand, four hundred and five

1,562

E.

7,844

1,562

F.

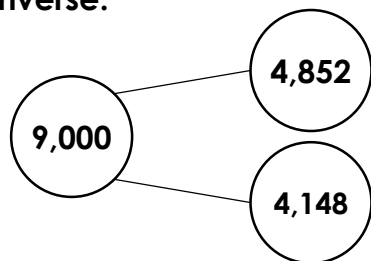
7,843

1,563



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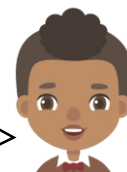
9. Rufus and Jenna are discussing how they would check the following calculation using the inverse.



A.  $4,852 = 9,000 - 4,148$

B.  $8,999 - 4,147 = 4,852$

I would use A because exchanging across four columns is the most accurate method.



Rufus

I would use B because finding the difference is the most efficient method.



Jenna

Who do you agree with? Explain why.



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## Homework/Extension Checking Strategies

### Developing

1. True
2. A and E, B and D, C and F
3. Charlie is correct because using the inverse to check is more suitable than reordering and making the same mistake twice. Calculation A is wrong.

### Expected

4. False
5. A and F, B and D, C and E
6. Samira is correct because George's subtraction would not equal 8,976 as he has used subtraction rather than addition, whereas her calculation would equal 6,521.

### Greater Depth

7. False
8. A and E, B and D, C and F
9. Jenna is correct because in this calculation, finding the difference is the most efficient method to check the answer.