**Reasoning and Problem Solving – Inverse operation**



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| 1. Tom has written some calculations based on this bar model.Macintosh HD:private:var:folders:5k:54k53_tn2wl58mfv0m4nnflm0000gn:T:TemporaryItems:Screenshot 2020-06-16 at 20.12.38.png | 2. Find the related numbers through addition and subtraction.  |
| 3. Using the digit cards, create a calculation that equals 3,846. The digit cards can be used more than once in the same number. | 4. Macintosh HD:private:var:folders:5k:54k53_tn2wl58mfv0m4nnflm0000gn:T:TemporaryItems:Screenshot 2020-06-16 at 21.19.50.png |
| 5.True or false? Mildred can use calculation B to check the answer to 3,756 + 5,906 = 9,671.  Macintosh HD:private:var:folders:5k:54k53_tn2wl58mfv0m4nnflm0000gn:T:TemporaryItems:Screenshot 2020-06-16 at 20.18.53.png |

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| 6. Match the calculation to its inverse.  |
| 7. George and Samira are discussing how they would check the following calculation using the inverse. Macintosh HD:private:var:folders:5k:54k53_tn2wl58mfv0m4nnflm0000gn:T:TemporaryItems:Screenshot 2020-06-16 at 20.20.05.png |
| 8.  |

**Answers**

1. **B and C are incorrect. For the answers to work, the = and – signs could be swapped, or the – could be changed to +.**
2. **6,522 is the odd one out. 4,253 + 2,435 = 6,688; 6,688 – 2,435 = 4,253; 6,688 – 4,253 = 2,43**
3. **Various answers, for example: 1,325 + 2,521 = 3,846; 3,846 – 2,521 = 1,325 3,335 + 511 = 3,846; 3,846 – 511 = 3,335**
4. **a)  Fran has chosen the wrong numbers to add when trying to calculate the**  **inverse. She should have done 3027 + 2647 or 2647 + 3027.**

**b)  Fran did get her calculation correct.**

1. **False**
2. **A and F, B and D, C and E**
3. **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.**

