1) $12346+7632=19978$. Write all the other calculations you can make using these three numbers.
2) Can you work out my number in each of these?
a) I am thinking of a number. I add 6538 and then subtract 1697. I now have 13574 . What is my number?

b) I am thinking of a number. I subtract 9657 and then add 12368 . I now have 47305 . What is my number?

c) I am thinking of a number. I add 12 101, subtract 3914 and then add 6054. I now have 36278 . What is my number?
$\qquad$
3) Terry has written the different calculations that can be made from each calculation. He has made some mistakes.
a) Can you identify them all?

| $\mathbf{3 2 1 0 5 + 1 6 2 5 1 = 4 8 3 5 6}$ | $52132-\mathbf{1 2} \mathbf{6 5 8}=\mathbf{3 9 4 7 4}$ | $\mathbf{9 8 6 5}+\mathbf{1 5} \mathbf{3 6 6}=\mathbf{2 5} \mathbf{2 3 1}$ |
| :---: | :---: | :---: |
| $16251+32105=48356$ | $52135-39474=12658$ | $15366+9865=25231$ |
| $16251-48356=32105$ | $39474+12658=52132$ | $25231-15366=9865$ |
| $48356-32105=16251$ | $12658+52132=39474$ | $9865-25231=15366$ |

b) How should Terry have written these correctly?
$\qquad$
$\qquad$
2) Terry says subtraction can be done in any order, just like addition. Do you agree? Explain your thinking and use examples.
$\qquad$ $\longrightarrow$

1) a) Can you complete this arithmagon by adding the numbers in two corners to find the number in the rectangle between them?

b) Can you complete this arithmagon by finding the difference between the two corners to find the number in the rectangle between them?

2) What could the numbers be to complete this arithmagon? Find 2 different possible sets of numbers using addition or difference.

3) Now create your own arithmagons for your partner to try.

