



Challenge

Without substituting any numbers for a , b and c , predict which algebraic expression will result in the greatest answer.

Which expression will result in the smallest answer?

Which expressions will result in the same answer?

Now substitute positive whole numbers for the letters a , b and c and test your predictions.

What generalisations can you make?



$$a + (b - c)$$

$$a + b + c$$

$$(a - b) + c$$

$$a - (b + c)$$

$$a - b - c$$

$$(a + b) - c$$

Think about ...

Remember, you need to make predictions before you substitute positive whole numbers for the letters. Can you explain how you arrived at your predictions?



Be sure to substitute different sets of three positive whole numbers to test your predictions.

What if?

Which of these expressions will result in the greatest answer?

Which of these expressions will result in the smallest answer?

Which expressions will result in the same answer?

$$a \times (b - c)$$

$$(a \times b) + c$$

$$(a \times b) - c$$

$$(a - b) \times c$$

$$a + (b \times c)$$

$$(a + b) \times c$$

What generalisations can you make?

When completed, consider:

Could you have calculated the answers in a different way?

Was your method the most efficient?