Name: $\qquad$ Date: $\qquad$

## Learning Goal 5.2 I can add and subtract polynomials.

So far, we have learned about

- Monomials, binomials, trinomials and polynomials,
- The degree of a polynomial,
- How to add and subtract different types of polynomials, and
- How to use algebra tiles to help us find the solutions to addition and subtraction problems.

Remember,


Light represents positive terms


Dark represents negative terms

Step 1 Designing your Art.
Step 2 What expression is represented in your picture?
Step 3 Adding Polynomials.
You will draw a line through your art work that divides the piece into 2 sections (not necessarily in the middle of your art). Label one section A and the other section B. On a separate piece of paper, you must

1. Write the original polynomials both with algebra tiles and using algebraic terms,
2. Simplify the original polynomials both with algebra tiles and using algebraic terms, and
3. Add polynomials $A$ and $B$ together $(A+B)$, showing simplification steps as well as the final answer both with algebra tiles and using algebraic terms.

- All steps in adding the polynomials should be shown both visually and algebraically.
- Please write out original polynomials and simplified polynomials before adding.
- Crossing out zero pairs on the visual diagrams should be shown.
- Removing brackets and grouping like terms should be shown in individual steps in your algebraic solution.

