

Combining Like Terms

1. In your envelope, you have shapes, **triangles** and **hexagons**. For this exercise, let **t** represent the number of triangles and the **h** represent the number of hexagons. Draw each figure on your paper and tell me how many sides each figure has.
2. Write an expression using **t** that represents the total number of sides of any number of triangles. Explain.
3. Write an expression using **h** that represents the total number of sides of any number of hexagons. Explain.
4. Use the given values of **t** and **h** to determine the total number of sides that should be found in your envelope.
5. You and the group across from you, have the same amount of triangles and hexagons in your envelope. Write an expression that represents the total number of sides that you and your partner have. Write more than one expression to represent this total.

Get questions 1-5 checked by your teacher before moving on

6. Open your envelope and count the numbers of triangles and hexagons. **t** = ? **h** = ?
7. Using the values of **t** and **h** you just found and your expression from #2, calculate the number of sides that should be found in your envelope.

Get this checked by your teacher before moving on

8. Use the same values for **t** and **q**, and your expression from #3 to determine the number of sides that should be contained in both envelopes. Show your work.

Combining like terms:

9. Rewrite $5x + 3x$ in expanded form (example $3a$ would be written $a + a + a$)
10. Rewrite $5x - 3x$ in expanded form
11. Simplify number 8
12. Simplify number 9

Get this section checked by your teacher

12. Simplify by combining like terms

$$2x + 3 + 5x + 6$$

13. $(8a + 2b - 4)$ and $(3b - 5)$

Get 12 and 13 checked by your teacher

Start U.6