In this tutorial, we'll explore *like terms*.

$$n, \quad 4n, \quad -8n, \quad \frac{1}{2}n$$

Let's begin by recalling what we know about algebraic *terms*…

$4n, \quad 15, \quad 12x, \quad -18n$

How would you describe the parts that make up each term?

Which of these terms could also be described as *Like Terms?*

What did you consider or focus on when determining which terms were like terms?

How do you define like terms?

Like Terms *have the same variable.*

How would you describe writing a *like term* for each term highlighted below?

$4n, \quad 15, \quad 12x, \quad -18n$

Consider the two terms written below…

$n, \quad -n$

One student described each term as… *just a variable.* Another student explained that each term has a *coefficient and a variable.* The teacher indicated that both students were correct.

How would you explain both students being correct?

Compare the terms shown below.

$\frac{1}{4}x, \quad 1.5x, \quad -9x, \quad x$

Does the type of number or *coefficient* help you determine if two or more terms are like terms?

Let's compare a new group of terms…

$4n^2 \quad 5n \quad -2n \quad -7n^2$

Can you identify the like terms?

Which parts of each term are you focusing on when identifying which terms are like terms?

Did this new group of terms change the way you identified the like terms?

How might the exponent change your earlier definition of like terms?

Let's make our next group of terms slightly more complicated to look at.

$$-7y^2, 5xy, 15x, 12xy, 19y^2, 0.25x$$

How would you explain your thinking as you determine which of the terms are like terms?

How might this last group of terms changed the way you explain or define like terms?

How would you explain and demonstrate identifying the like terms in this algebraic expression?

$$5x + 2 - 3x + 5 + 9x$$

How would you explain and demonstrate identifying the like terms in this algebraic expression?

$$8n^2 + 16n + 9n^2 - 7n$$

Exploring Like Terms – Skills Checklist

- ☑ I can describe how the following are used to write algebraic terms...
  Coefficients, Variables, Exponents
- ☑ I can define 'like terms'
- ☑ I can explain how I identify like terms
- ☑ I can write a like term

Exploring Like Terms - Worksheet