

# Problem of the Week

When working with operations, it can be advantageous for students to consider equality amongst expressions. The tasks are meant to be open-ended so that discussion can support understanding.

*Be mindful that during these prompts, it is important the teacher listens to student conversations and asks questions that illicit student thinking.*

<b>Primary</b>	There is an expression on both sides of the equal sign. Each number is made with different digits from 1-9. One side of the equal sign has an addition sign while the other side has a subtraction sign. What could the equation be?
<b>Extension</b>	<ul style="list-style-type: none"><li>• The digits 1-9 are all used only one time.</li><li>• There is more than one operation on each side of the equal sign.</li><li>• State the number of digits to be used in some or all the numbers.</li></ul>

<b>Elementary</b>	There is an expression on both sides of the equal sign. Both whole numbers and decimal numbers can be used. Each number is made with different digits from 1-9. Only three of the operations are used. One side of the equal sign has two operations while the other side has one operation. What could the equation be?
<b>Extension</b>	<ul style="list-style-type: none"><li>• Each of the digits can only be used up to two times.</li><li>• Different number of signs on either side of the equal sign.</li><li>• State the operations to be used.</li></ul>

<b>Intermediate</b>	There is an expression on both sides of the equal sign. There are both proper and improper fractions. Each number is made with different digits from 1-9. Only three of the operations are used. One side of the equal sign has two operations while the other side has one operation. What could the equation be?
<b>Extension</b>	<ul style="list-style-type: none"><li>• Each of the digits can only be used up to two times.</li><li>• Different number of signs on either side of the equal sign.</li><li>• State the operations to be used.</li></ul>