Warm-up Activity: Yohaku Puzzles

Yohaku Instructions: Fill in the empty cells so that they have the sum shown in each row.

Example: Possible solutions:

		9x
		-2x
-x	8x	+

4x	5x	9x
-5x	3x	-2x
-x	8x	+

0	9x	9x
-x	-x	-2x
-x	8x	+

Use your number tiles to solve the Yohaku puzzle below. **Use nine consecutive numbers** to solve.

			18
			15
			3
8	11	17	+

Yohaku resources: http://www.yohaku.ca/a-new-type-of-number-puzzle.html

Puzzle 1 (top-left, handwritten)

+		
$\frac{1}{6}$	42	7
54	$\frac{1}{2}$	27
9	21	✗

Do not use odd numbers

Puzzle 2 (top-right)

			$2bc$
			$6a^2 + 6ab$
			$5c^2$
$a^2 + ab$	$10bc$	$6c^2$	✗

Each cell must be different

Puzzle 3 (middle-left)

		0.15
		24
10	0.36	✗

Sum of 4 cells is 22

Puzzle 4 (middle-right)

		0.48
		1
4.8	0.1	✗

Sum of 4 cells is 5.1

Puzzle 5 (bottom-left)

		$x^2 - 7x + 12$
		$4x^2 + 12x + 9$
$-2x^2 + 3x + 9$	$-2x^2 + 5x + 12$	✗

Puzzle 6 (bottom-right)

		$\dfrac{1}{2}$
		$\dfrac{1}{15}$
$\dfrac{1}{3}$	$\dfrac{1}{10}$	✗

Sum of 4 cells is 2.