Math 6a/b: Homework 6

Homework #6 is *due November 4*. *Please, write clearly which problem you are solving and show all steps of your solution.*

1. Verify the associative property of OR (*R* i.e. fill out the truth table and check if the left side of the formula is equal to the right side)

P OR (*Q* OR *R*) = (*P* OR *Q*) OR *R*:
(left side)   ?= (right side)

					(left side)	(right side)
P	*Q*	*R*	*Q* OR *R*	*P* OR *Q*	*P* OR (*Q* OR *R*)	(*P* OR *Q*) OR *R*

How many rows do you have in a truth table for three logical variables?

2. Verify the associative property of XOR.

3. *Optional* Solve problems from the Canadian Math Kangaroo, linked below. These will not be graded and no need to be submitted as part of the homework; please try to solve the questions before checking the answers.

https://kangaroo.math.ca/samples/2017/2017gr0506e.pdf

https://kangaroo.math.ca/samples/2018/2018gr0506e.pdf