Function Pyramids

First I experimented with different integers.

I noticed that powers of 2 gave integer answers.

$$f(1,2)=1$$

$$f(4,4)=4$$

$$f(4,1)=2$$

$$f(8,4)=5$$

Sometimes I got 0 or $-\infty$.

$$f(1,1)=0$$

$$f(2,0) = -\infty$$

This looks like log_2

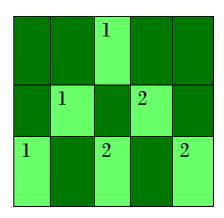
I think $f(a,b) = log_2(ab)$

I tested this function with more numbers.

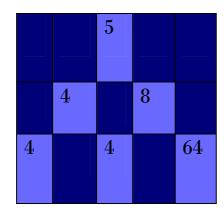
$$f(2048,4096)=23$$

$$f(1048576,1073741824)=50$$

To get 1 in top cell 2^{nd} row has 1 and 2 1,2,2 works at bottom.



For 5:



For negative in top cell:

I need the 2^{nd} row to give a negative power of 2.

