

Name:	
Period:	Row:

Quadratic Factoring Investigation

Determine if the a quadratic of the form x^2+bx+c , with the b and c given in the table below can be factored to integers. Write "Yes" if the quadratic factors

Ex1. $x^2+3x+2=(x+2)(x+1)$

Our quadratic has a b=3 and a c=2. Looking at the table where b=3 on column 3, and at c=2 on row 2, we write down "Yes" because x^2+3x+2 factors nicely into factors with integers $(x+2)(x+1)$.

Ex2. $x^2+4x+7=$

Our quadratic has a b=4 and a c=7. This quadratic does not factor into integers. Looking at the table where b=4 on column 4, and at c=7 on row 7, we write down "No" because x^2+4x+7 does not factor nicely into binomials with integer roots.

Ex3. $x^2+7x=(x)(x+7)$

Our quadratic has a b=7 and a c=0 because $(x^2+7x=x^2+7x+0)$. Looking at the table where b=7 on column 7, and at c=0 on row 0, we write down "Yes" because x^2+7x factors nicely into factors with integers $(x)(x+7)$.

Quadratics of the form x^2+bx+c that are factorable into integers											
x^2+bx+c		b									
		0	1	2	3	4	5	6	7	8	9
c	0								Yes		
	1										
	2				Yes						
	3										
	4										
	5										
	6										
	7						No				
	8										
	9										

Show Work Here:

Answer the following questions:

- 1) Do most quadratics factor nicely into integers?
- 2) What is the percentage of the quadratics that factor nicely into integers (there are 100 quadratics total)?
- 3) Is Mr. Ho the best math teacher ever for giving you easily factorable questions for homework and quizzes?