Nai	me	Pd	Date		_Section 2P5	
Are Ex.	Are you smarter than a 5 th grader? Ex. What two numbers add to be 5 but when multiplied your answer is 6? Ans: 2 and 3 because $2 + 3 = 5$ and $2(3) = 6$					
1)	What two numbers add to be 2 but when mu	ltiplied	your answer is 13	?		
2)	What two numbers add to be 8 but when mu	ıltiplied	your answer is 15	5?		
3)	What two numbers add to be 14 but when m	nultiplied	l your answer is 4	48?		
4)	What two numbers add to be -4 but when r	nultiplie	d your answer is	4?		
5)	What two numbers add to be -6 but when r	nultiplie	d your answer is	-7?		
6)	What two numbers add to be 2 but when mu	ıltiplied	your answer is —	8?		
7)	What two numbers add to be 9 but when mu	ıltiplied	your answer is —	52?		
8)	What two numbers add to be 0 but when mu	ıltiplied	your answer is —	9?		
9)	What two numbers add to be -5 but when r	nultiplie	d your answer is	-6?		
10)	What two numbers add to be 20 but when	multiplie	ed your answer is	; -44?		

**Key Idea:

- When your product is negative, your addition has the sign of the ______ number.
- If your product is positive but your addition is negative, both numbers must be ______.

Factoring Trinomials into the Product of Binomials • A quadratic trinomial is in the form $ax^2 + bx + c$.

- quadratic means ٠

trinomial means

• When a = 1, we can factor by reverse FOIL, reverse box method, or reverse rockets.

	De sus De Made d			
Keverse FUIL/KOCKEts	Keverse Box Method			
$x^2 + 11x + 24$	$x^2 + 10x + 16$			
$x^{2} + \underline{\qquad} + \underline{\qquad} + \underline{\qquad} + 24$ F 0 I L We need to find the like terms. What 2 numbers will multiply to 24 and add to 11?	x ² 16			
So what are the binomials whose product is the trinomial?	We need to find the like terms. What 2 numbers will multiply to 16 and add to 10?			
Check by FOILing or shooting rockets.	So what are the binomials whose product is the trinomial? Make sure they fit your box.			
$\underline{\mathrm{Ex.}} \qquad x^2 + x - 6$	$\underline{\mathrm{Ex.}} \qquad x^2 - 9x - 20$			
$\underline{You Try} \qquad x^2 - 2x - 80$	$\underline{You Try} \qquad x^2 - 7x + 10$			