

Factoring Simple Trinomials

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Simple Trinomials : $x^2 + bx + c$

no coefficient integers

* To factor a simple trinomial, use the

SPF Method \Rightarrow Sum - Product - Factoring

⊗ Look for 2 "magic numbers" that have a sum = b and product = c
(from $x^2 + bx + c$)

Ex. Factor using the SPF Method

① $x^2 + 11x + 18$

$S = 11$
 $P = 18$

$(x + 2)$ $(x + 9)$

18	
1	18
2	9
3	6

← Magic numbers

② $x^2 + 15x + 56$

$S = 15$
 $P = 56$

$(x + 7)$ $(x + 8)$

56	
1	56
2	28
4	14
7	8

③ $x^2 - 10x + 21$

$S = -10$
 $P = 21$

$(x - 3)$ $(x - 7)$

21	
-1	-21

⊗ only consider negative

$$(x - 3)(x - 7)$$

←

-1	-21
-3	-7

consider
negative
factors
b/c sum
is negative