7.2 Factoring Trinomial of the type

$$
x^{2}+b x+c
$$

Jobs of the numbers


Equal $|\mathrm{b}|$

Jobs of the signs


- If possible, always factor out a GCF first.

Examples: Factor each expression.

1. $x^{2}+7 x+10$
2. $y^{2}+21 y+20$
3. $a^{2}-13 a+30$
4. $x^{2}-9 x+20$
5. $y^{2}+13 y-48$
6. $y^{2}+8 y-20$
7. $p^{2}-2 p-24$
8. $X^{2}-10 x-39$
9. $x^{2}-4 x y-77 y^{2}$
10. $a^{2}+11 a b+24 b^{2}$
11. $-6 a^{2}-24 a-18$
12. $q^{2}+3 q-16$
13. $4 s^{2}-28 s t+12 t^{2}$

This document is $100 \%$ funded by the MoSTEMWINs $\$ 19.7$ million grant from the U.S. Department of Labor, Employment and Training Administration (TAACCCT). The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

