7.3 Factoring Trinomials of the type $ax^2 + bx + c$

When $a \neq 1$:

1. Multiply "a" times "c"
2. Find factors of that product that +/- to equal |b|
3. Determine the signs needed for the two new terms.
4. Rewrite the trinomial replacing the middle term with the two factors and variables.
5. Factor the GCF of the first two terms & GCF of last two terms
6. Write the two binomial factors.

Factor each expression.

a. $2y^2 + 5y + 2$

b. $6n^2 - 23n + 7$

c. $5x^2 - 14x - 3$

d. $20p^2 - 31p - 9$

e. $2x^2 + x - 3$

f. $12x^3 - 26x^2 + 12x$

g) $4x^2 + 33x + 35$

h) $28cs^4 + 4cs^3 + 20cs^2$

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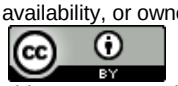

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