

3.9a Factoring by substitution

If you notice a pattern, it may be easier to use substitution to factor a polynomial.

Consider: $xA + yA$

Now: $x(a + b) - y(a + b)$

Ex. Factor

a) $(y - 3)^2 + (y - 3) - 12$

b) $6(a - b)^2 - 13(a - b) + 5$

c) $(x^2 + 4x + 3)^2 + 2(x^2 + 4x + 3) - 15$

ex. $(y - 3)^2 - (y + 1)^2$

ex. $16(x + 1)^2 - 9(2x - 3)^2$

Try to invent an expression the you could factor using substitution. Show it to me. If I like it, I might use it on a quiz.