

Name Key

Date _____

Factoring Practice

Factor the polynomial. Show your work on a separate sheet of paper (stapled to this) or on the back of this paper. Make sure that I can see what work goes with what problem.

- $x^2 - x - 56 = (x - 8)(x + 7)$
- $m^2 + 14m + 48 = (m + 6)(m + 8)$
- $y^2 - 15y + 54 = (y - 9)(y - 6)$
- $p^2 + 12p + 20 = (p + 2)(p + 10)$
- $-w^2 + 14w - 45 = -1(w - 9)(w - 5)$
- $-x^2 - 2x + 24 = -1(x + 6)(x - 4)$
- $-n^2 + 11n + 60 = -1(n - 15)(n + 4)$
- $-z^2 - 22z - 121 = -1(z + 11)^2$
- $63m^2 - 31m - 10 = (9m + 2)(7m - 5)$
- $40r^2 - 42r + 9 = (10r - 3)(4r - 3)$
- $16a^2 - 2a - 3 = (2a - 1)(8a + 3)$
- $-15d^2 - 2d + 8 = -1(15d^2 + 2d - 8) = -1(5d + 4)(3d - 2)$
- $25x^2 - 81 = (5x - 9)(5x + 9)$
- $225p^2 - 100 = 25(9p^2 - 4) = 25(3p - 2)(3p + 2)$
- $121w^2 - 625 = (11w - 25)(11w + 25)$
- $36m^2 - 64 = 4(9m^2 - 16) = 4(3m - 4)(3m + 4)$
- $81x^2 + 90x + 25 = (9x + 5)^2$
- $100x^2 + 140x + 49 = (10x + 7)^2$
- $25x^2 - 60x + 36 = (5x - 6)^2$
- $16x^2 + 72x + 81 = (4x + 9)^2$