

## Factoring Polynomials 2 - KEY

- 1)  $x^2 - 4x = x(x - 4)$
- 2)  $x^2 - 5x + 6 = (x - 2)(x - 3)$
- 3)  $x^2 + 12x + 36 = (x + 6)^2$
- 4)  $x^2 - 4 = (x - 2)(x + 2)$
- 5)  $x^2 + 4x + 4 = (x + 2)^2$
- 6)  $x^2 - 4x - 5 = (x - 5)(x + 1)$
- 7)  $x^2 + 4$  does not factor
- 8)  $x^2 - 8x + 16 = (x - 4)^2$
- 9)  $9x^2 - 4 = (3x + 2)(3x - 2)$
- 10)  $x^2 + 4x + 5$  does not factor
- 11)  $x^2 + 9x = x(x + 9)$
- 12)  $x^2 - 100 = (x + 10)(x - 10)$
- 13)  $x^2 + 19x + 48 = (x + 3)(x + 16)$
- 14)  $9x^2 + 4$  does not factor
- 15)  $x^2 + 6x + 9 = (x + 3)^2$
- 16)  $x^2 - 25x = x(x - 25)$
- 17)  $4x^2 + 4x + 1 = (2x + 1)^2$
- 18)  $x^2 - x - 16$  does not factor
- 19)  $x^2 - 10x + 25 = (x - 5)^2$
- 20)  $x^2 - 6x - 7 = (x - 7)(x + 1)$
- 21)  $2x^2 + 8 = 2(x^2 + 4)$
- 22)  $x^2 - 81 = (x + 9)(x - 9)$
- 23)  $x^2 - 14x + 49 = (x - 7)^2$
- 24)  $x^2 + 6xy + 9y^2 = (x + 3y)^2$
- 25)  $x^2 + 36$  does not factor
- 26)  $x^2 + x = x(x + 1)$
- 27)  $81x^2 - 36 = 9(3x + 2)(3x - 2)$
- 28)  $x^2 - 30$  does not factor
- 29)  $x^2 - 22xy + 121y^2 = (x - 11y)^2$
- 30)  $x^2 - 12x - 28 = (x - 14)(x + 2)$
- 31)  $x^2 - 5x - 48$  does not factor
- 32)  $x^2 - y^2 = (x + y)(x - y)$
- 33)  $x^2 + 4x^2 = 5x^2$
- 34)  $x^2 - x = x(x - 1)$
- 35)  $x^2 + 16x + 64 = (x + 8)^2$
- 36)  $25 - x^2 = (5 - x)(5 + x)$