

2.7

$$1) \quad x^4 - 4x^2 - 5 = (x^2 + 1)(x^2 - 5)$$

$$2) \quad x^5 y + 7xy + 8x^3 y = x^5 y + 8x^3 y + 7xy = xy(x^4 + 8x^2 + 7) = xy(x^2 + 1)(x^2 + 7)$$

$$3) \quad x^6 + 7x^3 + 12 = (x^3 + 4)(x^3 + 3)$$

$$4) \quad y^6 - 9y^3 + 8 = (y^3 - 1)(y^3 - 8) = (y - 1)(y^2 + y + 1)(y - 2)(y^2 + 2y + 4)$$

$$5) \quad x^4 - 3x^2 - 4 = (x^2 - 4)(x^2 + 1) = (x - 2)(x + 2)(x^2 + 1)$$

$$6) \quad x^5 - 5x^3 + 4x = x(x^4 - 5x^2 + 4) = x(x^2 - 1)(x^2 - 4) = x(x - 1)(x + 1)(x - 2)(x + 2)$$