THE DIFFERENTIATION OF ALGEBRAIC FUNCTIONS

Use implicit differentiation to find the dy/dx:

1. 3xy + x2y2 = 1
2. xy1/2 – 2x + y = 8
3. (x + y)3 = x3 + y3
4. 3y2 + 5x2 -2x = 5
5. y4 = x3y2 + x2y3 – 3

Find the indicated higher order derivative of the following functions:

1. Find the 2nd derivative of f(x) = 7x5 – 4x3 – 2x2 – 5
2. Find the 6th derivative of f(x) = 2x5 – 3x3 + 4x2 + 2x -3
3. Find the 1st and 2nd derivative of the f(x) =