

Derivar implícitamente:

$$1 \quad x^2 y - x y^2 + y^2 = 7$$

$$2xy + x^2 y' - (y^2 + 2xyy') + 2yy' = 0$$

$$2xy + x^2 y' - y^2 - 2xyy' + 2yy' = 0$$

$$x^2 y' - 2xyy' + 2yy' = -2xy + y^2$$

$$y'(x^2 - 2xy + 2y) = y^2 - 2xy$$

$$y' = \frac{y^2 - 2xy}{x^2 - 2xy + 2y}$$

$$2 \quad x^2 \operatorname{sen}(x+y) - 5y e^x = 3$$

$$y' = \frac{-[2x \operatorname{sen}(x+y) + x^2 \cos(x+y) - 5y e^x]}{x^2 \cos(x+y) - 5e^x} =$$

$$y' = \frac{2x \operatorname{sen}(x+y) + x^2 \cos(x+y) - 5y e^x}{-x^2 \cos(x+y) + 5e^x}$$