Determinare il massimo ed il minimo delle funzioni seguenti sugli insiemi a fianco indicati:

$$f(x,y) = 3x^2 + 2y \quad V = \{(x,y) : x + y = 1, x \in [0,3]\}$$

$$f(x,y) = x + 5y \quad V = \{(x,y) : -x + 3y + y^2 = 0, y \in [-1,10]\}$$

$$f(x,y) = 2x - y^2 \quad V = \{(x,y) : -x + 5y = 1, y \in [-7,2]\}$$

$$f(x,y) = 2x + 5y \quad V = \{(x,y) : x^2 - y^2 = 0, y \in [-3,2]\}$$

$$f(x,y) = x + y \quad V = \{(x,y) : x^2 + y = 7, y \in [-1,5]\}$$

$$f(x,y) = x + y \quad V = \{(x,y) : x^2 = 4y^2, y \in [3,5]\}$$

$$f(x,y) = x - 2y \quad V = \{(x,y) : x^2 + y^2/2 = 2\}$$

$$f(x,y) = x - y^2 \quad V = \{(x,y) : x^2 + 1 = y^2, y \in [-3,5]\}$$

$$f(x,y) = x^2 - y \quad V = \{(x,y) : 3x^2 + 2 = y^2, x \in [-7,2]\}$$

$$f(x,y) = y \quad V = \{(x,y) : x^2 + 2y^2 - 2xy - 2 = 0\}$$

$$f(x,y) = x + 2y \quad V = \{(x,y) : x^2/4 + 2y^2 \leq 1\}$$

$$f(x,y) = 5x + y \quad V = \{(x,y) : x^2 + 2y^2 \leq 1\}$$

$$f(x,y) = x - y \quad V = \{(x,y) : x^2 \leq y^2 \leq 9\}$$

$$f(x,y) = x + y \quad V = \{(x,y) : -1 \leq xy \leq 1\}$$

$$f(x,y) = 3x - y \quad V = \{(x,y) : x^2 + y^2 \leq 1, y \geq 0\}$$

$$f(x,y) = x + 3y \quad V = \{(x,y) : 1 \leq x^2 + y^2 \leq 4\}$$