Consider the function

$$f(x, y) = e^{-9x} \cos(-3y).$$

Find and classify all critical points of the function. If there are more blanks than critical points, leave the remaining entries blank.

$f_x =$ _____

$f_y =$ _____

$f_{xx} =$ _____

$f_{xy} =$ _____

$f_{yy} =$ _____

The critical point with the smallest x-coordinate is _____

Classification: [?]

The critical point with the next smallest x-coordinate is _____

Classification: [?]

The critical point with the next smallest x-coordinate is _____

Classification: [?]

Consider the function

$$f(x, y) = e^{-9x} \cos(-3y).$$

Find and classify all critical points of the function. If there are more blanks than critical points, leave the remaining entries blank.

$f_x = \boxed{-9e^{-9x} \cos(3y)}$

$f_y = \boxed{-3e^{-9x} \sin(3y)}$

$f_{xx} = \boxed{81e^{-9x} \cos(3y)}$

$f_{xy} = \boxed{27e^{-9x} \sin(3y)}$

$f_{yy} = \boxed{-9e^{-9x} \cos(3y)}$

The critical point with the smallest x-coordinate is $\boxed{}$

Classification: $\boxed{}$

The critical point with the next smallest x-coordinate is $\boxed{}$

Classification: $\boxed{}$

The critical point with the next smallest x-coordinate is $\boxed{}$

Classification: $\boxed{}$