

No notes or calculators. Show all work.

1. (4 points) Find all the first partial derivatives of the function below.

$$f(x, y) = 3e^{6y-7x}$$

2. (6 points) Given the function and its first partials, find all the second partial derivatives.

$$f(x, y) = \ln |5x - 7y|$$
$$f_x(x, y) = \frac{5}{5x - 7y} \quad f_y(x, y) = \frac{-7}{5x - 7y}$$