

MTH 264, Quiz #13, Fall 2022 Name _____

Instructions: Work the problems below as directed. Show all work. Clearly mark your final answers. Use exact values unless the problem specifically directs you to round. Simplify as much as possible. Partial credit is possible, but solutions without work will not receive full credit.

1. Solve the separable differential equation $y' = xe^{x-y}$.
2. Find the component vector given the magnitude and the angle the vector makes with the positive x-axis: $\|\vec{v}\| = 5, \theta = 120^\circ$.
3. Find parametric equations for the line passing through (1,4) and (5,-2).