Math 3213 - Differential Equations $_{\rm Quiz~\#6}$ - $_{\rm 2007.02.16}$

| Name: | |
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Solve the following differential equation:

$$\left(-2xe^{-\left(x^2+y^2\right)} + \frac{1}{y-1} + \frac{1}{x}\right) + \left(-2ye^{-\left(x^2+y^2\right)} + \frac{1-x}{(y-1)^2} + \sin(y)\right)\frac{dy}{dx} = 0.$$