

PS 9 Selected Answers.

$$\textcircled{1} \lambda = \pm 2, \quad F(x, y) = 2xy^2 + \frac{x^2}{2} - \frac{y^4}{4}$$

$\textcircled{2}$ a) harmonic

b) harmonic

c) harmonic

$$\textcircled{4} \frac{\partial F}{\partial x} = \sqrt{x+y} - \sqrt{x}$$

$$\frac{\partial F}{\partial y} = \sqrt{x+y}$$

$$\textcircled{5} \det(J) = r$$