Quiz 22 (Problems)

1. For the following vector fields, determine if it is path independent; and if it is, find a potential function f.

    a. $\mathbf{F} = \langle 6x - 6y^2, \cos y - 12xy \rangle$

    b. $\mathbf{F} = \langle e^y \cos z, xe^y \sin z \rangle$

Quiz 22 (Answers)

1. (Math-252 Quiz 22)

   a. **F** is conservative and therefore path independent.
      $f = 3x^2 - 6xy + \sin y + C$

   b. **F** is not conservative and therefore not path independent.

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