

Quiz #12; Tuesday, date: 04/17/2018
MATH 53 Multivariable Calculus with Stankova
Section #114; time: 2 – 3:30 pm
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Student name:

1. Use Green's Theorem to evaluate the line integral along the given positively oriented curve.

$$\int_C \frac{1}{4}y^4 x \, dx + \frac{5}{2}y^3 x^2 \, dy,$$

where C is the circle $x^2 + y^2 = 4$.

2. *True / False?* Fix two points A and B in a simply connected domain D . If $\int_C \mathbf{F} \cdot d\mathbf{r}$ is the same for all paths C from A to B , then \mathbf{F} must be conservative on D .
3. *True / False?* Suppose P and Q has continuous partial derivatives everywhere. Green's Theorem cannot help us in computing line integral $\int_C \mathbf{F} \cdot d\mathbf{r}$ where C is given below.

