

Assignment 21 is a very good assignment. Here are some notes for the problems.

2. All answers are 1, you just need to show the work by finding the line integrals for the 3 curves.
4. Start with $\frac{df}{dx} = x^2 - y^2$ and integrate to get started finding $z = f(x, y)$ whose gradient is the given vector field
10. Field is path-dependent; you just need to show why.
- 11+13 The first step is to find f whose gradient is the given vector field. Any f will do,
15. Excellent problem!
- 17, 19, 23 - Same idea as 11+13.