

## Problems: Work and Line Integrals

1. Evaluate  $I = \int_C y dx + (x + 2y) dy$  where  $C$  is the curve shown.

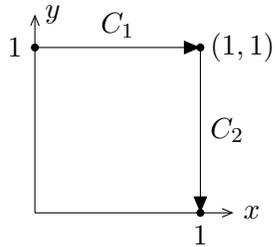


Figure 1: Curve  $C$  is  $C_1$  followed by  $C_2$ .

2. Let  $\mathbf{F} = -x\mathbf{i} - y\mathbf{j}$ . Sketch this vector field and describe it in words.

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