Quiz 8 — MA261 — July 25, 2017
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1. (8 points) Use Green's theorem to evaluate $\int_C y^3\, dx - x^3\, dy$, where C is the positively-oriented circle $x^2 + y^2 = 4$.

2. (12 points) Find (a) the divergence and (b) the curl of $\mathbf{F}(x, y, z) = xy^2z^3\mathbf{i} + x^3yz^2\mathbf{j} + x^2y^3z\mathbf{k}$.