- 1. State the Cauchy–Riemann equations.
- 2. Give an example of a function f(z) that is analytic.
- 3. Give an example of a function f(z) that is not analytic.
- 4. Suppose  $f(x + iy) = x^2 y^2 + 2xy + iv(x, y)$ . If f is analytic, then what can v(x, y) be?