

Exercises

18.13 [1M7] If $z = x + iy$ with $x, y \in \mathbb{R}$, then we can express the complex exponential as a product $e^z = e^x e^{iy}$. Use power series developments to show *Euler's identity* $e^{iy} = \cos y + i \sin y$.

Solution 1. [1M8]