

Answer on Question #82501 – Math – Complex Analysis

Question

Simplify this complex number

$$(\cos 3x + j\sin 3x) / (\cos x + j\sin x)$$

Solution

$$\frac{\cos 3x + j\sin 3x}{\cos x + j\sin x} = \cos(3x - x) + j\sin(3x - x) = \cos 2x + j\sin 2x.$$