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O-Yeat Chan* (ochan@math.uiuc.edu), 1409 West Green Street, Urbana, IL 61801. *Weighted Trigonometric Sums over a Half-Period.*

Let $f(z)$ be a quotient of trigonometric functions. Suppose $f(z)$ has period k , an odd integer. We use a contour integral to evaluate the sum

$$\sum_{0 < i < k/2} a_i f(i)$$

for any sequence of complex numbers a_i in terms of the Fourier coefficients of f . We also provide some examples for illustration. (Received February 04, 2006)