Formative Assessment #27 – Transforming Sinusoidal Functions

Given: $g(x) = -7\cos[2(x + 60°)] - 3$

T6.1: I can describe the effects of transformations on the graphs of a sinusoidal function (sine or cosine).

a) State the equation of the parent function.

b) Describe the transformations applied to the graph of the parent function.

T6.3: I can write a mapping rule describing the transformations applied to a sinusoidal function.

c) Write a mapping rule describing the transformations applied to the parent function.

T6.4: I can sketch the graph of a transformed sinusoidal function (sine or cosine) given its equation in transformational form.

d) Graph at **least two cycles** of function $g(x)$ on graph paper. As part of your solution, include a table of values containing five image points in the space below.

T6.: I can state the characteristics (domain, range, maximum value, minimum value, amplitude, period, phase shift and equation of the sinusoidal axis of a transformed sinusoidal function (sine or cosine).

e) Complete the table. *Use interval notation where appropriate.*

Characteristic	Answers
Maximum Value	
Minimum Value	
Amplitude	
Period	
Equation of the Sinusoidal Axis	
Phase Shift	
Domain	
Range	