

Worksheet 12

Sections 5.3 & 5.5

Section 5.3

Problem 1. Find the amplitude, period, and horizontal shift of the function, and graph two complete periods.

$$f(x) = 1 + 3 \cos \left(2x + \frac{\pi}{4} \right).$$

Problem 2. Find the amplitude, period, and horizontal shift of the function, and graph two complete periods.

$$g(x) = 3 - 2 \sin(3(x + 1)).$$

Section 5.5

Problem 3. Find the exact value of each expression, if it is defined.

$$(a) \sin^{-1}(2) \quad (b) \cos^{-1}(\sqrt{3}) \quad (c) \sin^{-1}(-1/2).$$