MATH 19501 Quiz 16 - Winter 25

Name: _____ EMPLID: _____ Answer all 2 questions.

You must show all of your work as neatly and clearly as possible and indicate the final answer in the provided region for each non-graph question. For all graph questions, you should sketch your graph on the grid provided.

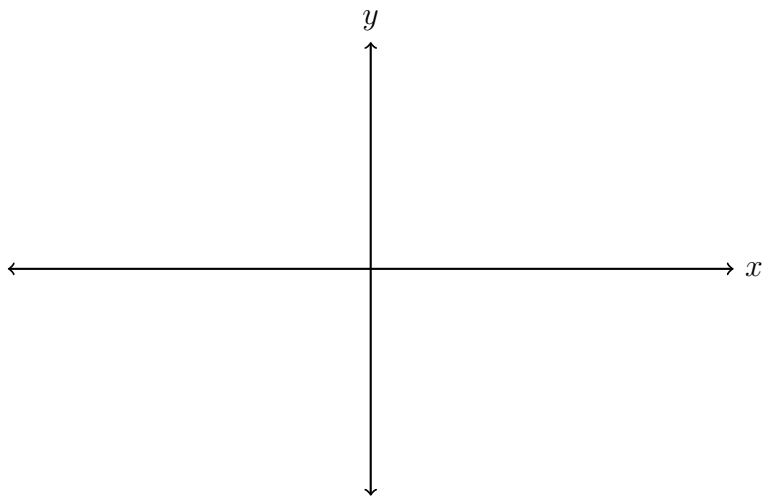
1. (10 points) Let $f(x) = 2\cos(x + \pi)$.

(a) (2 points) Find the amplitude of $f(x)$. Write your answer in the box below:

(b) (2 points) Find the period of $f(x)$. Write your answer in the box below:

(c) (2 points) Find the horizontal shift b of $f(x)$. Write your answer in the box below:

(d) (4 points) Sketch one complete period of the graph of $f(x)$ in the appropriate interval $\left[b, b + \frac{2\pi}{k}\right]$.



2. (10 points) Let $f(x) = -2\sin 2\pi x + 1$.

(a) (2 points) Find the amplitude of $f(x)$. Write your answer in the box below:

(b) (2 points) Find the period of $f(x)$. Write your answer in the box below:

(c) (2 points) Find equation for the midline of $f(x)$. Write your answer in the box below:

(d) (4 points) Sketch one complete period of the graph of $f(x)$ in the appropriate interval $\left[0, \frac{2\pi}{k}\right]$.