

Name _____

- You have 15 minutes
- No calculators
- Show sufficient work

1. (4 points) Carefully sketch a graph of $f(x) = 5 - 3 \sin(2x)$ on the interval $[0, 2\pi]$.

2. (3 points) Determine the domain of the given function.

$$f(x) = \frac{2}{1 - \sqrt{3 - \sqrt{x+4}}}$$

3. (3 points) Suppose $0 < \theta < \pi/2$ and $\sec \theta = 4$. What is the value of $\cot(\pi - \theta)$? Do not use inverse trigonometric functions in your answer.