MATH 19501 Quiz 10 - Winter 25

Name: _____   EMPLID: _____ Answer all 4 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. (4 points) Let $f(x) = -4^{2x+3}$. Find $f(-1)$. Write your answer in the box below:
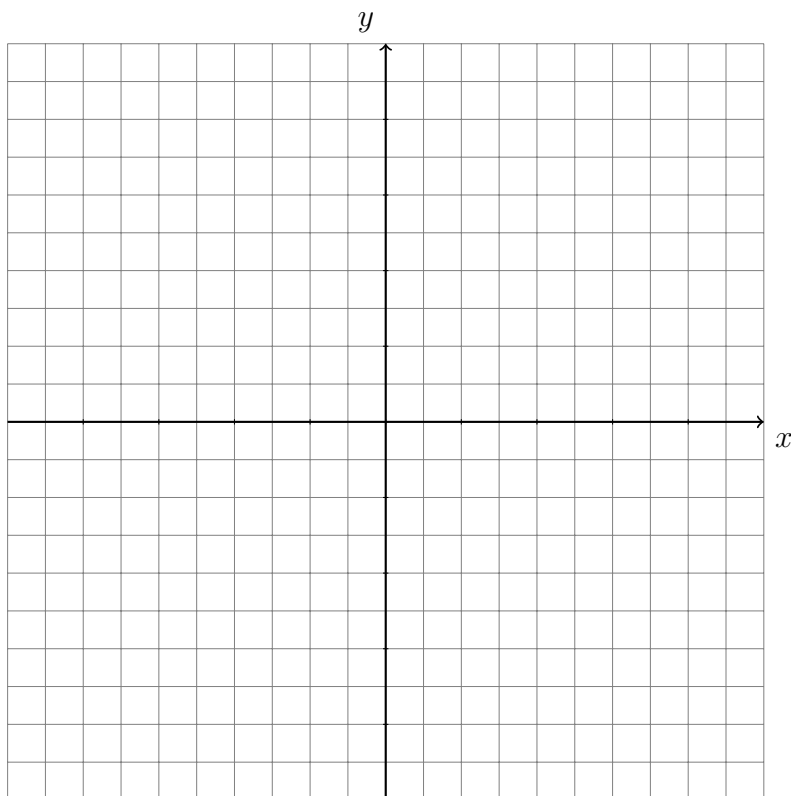
$$f(-1) = \underline{\hspace{4cm}}$$

2. (4 points) Find a formula $f(x) = a(b)^x$ for an exponential function that passes through $(0, 6)$ and $(2, 150)$.

Write your answer in the box below:

$$f(x) = \underline{\hspace{6cm}}$$

3. (4 points) Sketch the graph of $f(x) = 4^x - 2$ on the set of axes below.

4. (4 points) Starting with the graph of $f(x) = 3^x$, write the equation of the graph that results from reflecting $f(x)$ about the x-axis and then the y-axis.

Write your answer in the box below:

$y =$