MATH 101 (141)
QUIZ # 2

NAME: ..... ID. #: .....

Q1. Let $\lfloor x \rfloor$ denote the greatest integer less than or equal to x. Evaluate the limit:

$$\lim_{x \to -2^-} \lfloor x + 2 \rfloor$$

Q2.use the sandwich theorem to find the limit

$$\lim_{x \to 0} (2 + x^2 \sin \frac{\pi}{x})$$

Q3. Find the values of a and b that make f continuous everywhere

$$f(x) = \begin{cases} x + 1 & \text{if } x < 1 \\ ax + b & \text{if } 1 \leq x < 2 \\ 3x & \text{if } x \geq 2. \end{cases}$$