QUIZ 10 - MATH 102 YOUR NAME:

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Fill in the y-row of the small table and then sketch the graph of the function $f(x) = (\frac{1}{2})^x$.

- 2. Solve the following equations:
 - (a) $25 = 125^{x/2}$.

(b) $\log_x (16) = -2.$

- 3. Write each expression in terms of $\log 3$ and/or $\log 5$.
 - (a) $\log 15 =$
 - (b) $\log(\frac{3}{5}) =$
 - (c) $\log 75 =$
 - (d) $\log\left(\frac{1}{3}\right) =$