

Name: _____

MATH 101

Fall 2021

HW 15: Due 11/16

"I wanted to buy a candle holder, but the store didn't have one. So I got a cake."

–Mitch Hedberg

Problem 1. (10pt) Write the function $f(x) = -5(2^{x-1})$ in the form $y = Ab^x$ for some A and b . Show all your work.

Problem 2. (10pt) Write the function $f(x) = 6(3^{2x+1})$ in the form $y = Ab^x$ for some A and b . Show all your work.

Problem 3. (10pt) Solve the equation $4^{x+1} = \frac{1}{16}$. Show all your work.

Problem 4. (10pt) Solve the equation $25^{1-x} + 3 = 4$. Show all your work.