

YOUR NAME: \_\_\_\_\_

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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. Consider the function  $f(x) = 3^{-x}$ .

(a) Convert this to an ordinary exponential function of the form  $f(x) = a^x$ .

(b) Fill-in the following table:

$x$	-2	-1	0	1	2
$y = f(x)$					

(c) Plot the graph of the function  $y = f(x)$  **neatly**.

2. Before coming to school this fall, your mom gave you \$3,000 to keep in case of an emergency. You made the decision to invest part of this money in a CD that yields 4% annually compounded quarterly and will be worth \$2,000 when it matures in four years, when you will be ready to graduate. The remaining money you deposited in a checking account. How much money did you deposit in the checking account?