

Name: _____ Per: _____ Date: _____

Review for IMIB CHAPTER 8 INDIVIDUAL TEST

- 1) For the sequence: 35, 175, 875, 4375
- What is the equation for this sequence?

 - What is the 12th term in the sequence?
- 2) Peitra has \$1,000 to deposit into a bank. She puts the money into an account that earns **simple interest** of 8% each month.
- How many dollars in interest does Peitra earn each month?

 - Write the equation.

 - How much money will she have in her account after 3 years (36 months)?
- 3) You have just been notified that you are the only living descendent of a math-lover, who put \$1 in a bank account in 1766 and left it. Since then, the money has been collecting interest. He left instructions in his will that in 2024, if he had any living descendant who could determine the exact amount of money in the bank, that person could have the money.
- Here is the information: The \$20 was deposited in a bank account with an annual interest rate of 3%. Since then, the interest has been **compounded annually**. As of 2024 (258 years later), how much money is in the account? Show all of your work clearly.

4) Solve each system of equations:

a. $4x + y = 8$
 $x = 5 - y$

b. $y - 2x = -7$
 $-4y + 3x = 8$

5) The table below represents an exponential function of the form $y = ab^x$. Complete the table below, and then write the equation for the function.

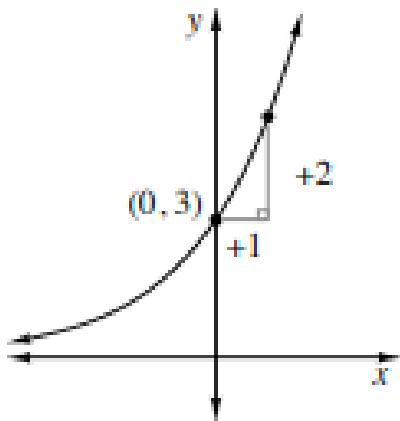
x	y
-1	
0	5
1	15
2	45
3	
4	

equation: _____

b. $3x(2x + 3) = 2(x + 2)(3x - 1)$

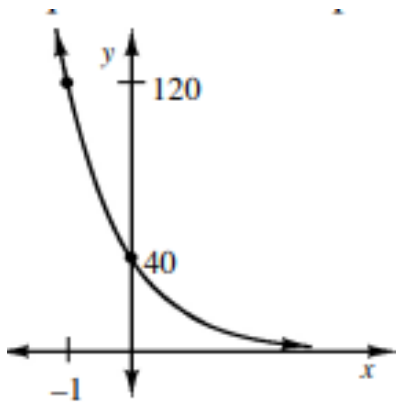
8) Write an equation in the form $y = ab^x$ for each exponential function below.

a.



equation: _____

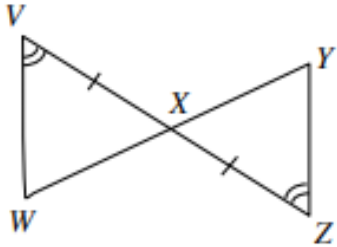
b.



equation: _____

10) For each pair of triangles, decide whether or not they are congruent. If they are congruent, write the **congruence statement** and the **congruence property** (SSS, etc.) that proves it. If not, say "not enough information." NOTE: These are **not** drawn to scale! (4 pts)

a. $\triangle VXW \cong \triangle$ _____ by _____



b. $\triangle RSQ \cong \triangle$ _____ by _____

