



STUDENT _____

GROUP _____

INSTRUCTOR _____

DATE _____

Math Lab Lesson #3 Group Activity: Compound Interest

★ **ACTIVITY: MAKE IT RAIN AND PUT IT IN THE BANK!**

A local bank is looking for Investors to deposit money so that they can loan this money to a company that promises to pay the bank 6.5% annual interest. A Banker comes up with a game to determine how the Investor's money grows, and for how long.



By the end of this Activity, both the Investor and the Banker will make some money. The goal of this activity is to answer the questions: Who makes more money: the Investor or the Banker? How much more money do they make?

STEP 1: Find a partner. Decide who is going to be the **Banker**, and who is going to be the **Investor**.

STEP 2: The Investor starts with \$150 to deposit at the bank. Give the Banker \$150.

STEP 3:

- The Investor rolls 1 die. Whatever number shows up represents the annual interest rate given by the bank. For example, if you roll a 4, you get an annual interest rate of 4%.
- The Investor picks one piece of paper with the compounding frequency: Annually, Quarterly, or Monthly
- The Banker rolls 5 dice and adds them up. This sum represents the number of years that the money will be in the bank. This is also the number of years that the bank will loan this money to the company.



STEP 4: Separately, calculate how much money the Investor should be paid. Compare your answers, and come to a consensus. Work together to fill out the Investor Table. **Banker: pay your Investor!**

STEP 5: Calculate how much money the Banker makes. **Banker: pay yourself!** Then answer the question below and put your data on the board.

INVESTOR TABLE						
Initial Deposit	Interest Rate	# of times compounded per year	# of years	Interest Model	Total Amount Paid to Investor	Total Amount Made by Investor
\$150						

BANKER TABLE							
Initial Deposit	Fixed Interest Rate	# of times compounded per year	# of years	Interest Model	Final Amount	Total Amount Paid to Investor	Total Amount Made by Bank
\$150	6.5%	1					

★ Who makes more money: the Investor or the Banker? How much more money?

