

Student Name: _____ Date: _____

How Much More Money?

The equation below can be used to determine the amount of money in an account after x years with an initial deposit of a dollars where interest is compounded annually at a rate of 7.5%.

$$y = a \cdot 1.075^x$$

Use the given equation and your graphing calculator to complete the table below showing the balance after each year for 3 accounts with different initial deposits.

Number of Years, x	Balance, a_1 (dollars)	Balance, a_2 (dollars)	Balance, a_3 (dollars)
0	\$100.00	\$500.00	\$750.00
1			
2			
3			
4			
5			
6			
10			
20			
30			

1. What is the difference in the initial deposit amounts of account a_1 and account a_3 ?
2. What is the difference in the account balances of the same two accounts after 30 years?

Communicating About Mathematics

Compare and contrast the graphs of the three situations represented in the table above.


