

1. Duncan's grandparents put some money into a college savings account when he was born. They intend to let the interest accumulate in the account until he needs to use the money to help pay for college. The **rule** $y = 4,000(1.07^x)$ gives the account balance after x years.
 - a. **How much** money did they put into the account **when Duncan was born**?
 - b. **What is the interest rate** for this account?
 - c. **How much money** will be in the account after **18 years**?
 - d. When will the account reach a **balance of \$40000**.
2. José **borrow**s \$500 from his brother to fix his car. His brother doesn't like lending José money and so charges him **4% interest** per month.
 - a. Write a rule in the " $y = \dots$ " **form** that will give the amount of money, y , José will owe his brother after x months, assuming that he doesn't make any payments
 - b. If José hasn't paid any money to his brother, **how much** will he owe after **5 months**?