$\qquad$ Class Period

## Mr. Wiggins gives his daughter Celia two choices of payment for raking leaves:

- Choice 1: Two dollars for each bag of leaves,
- Choice 2: She will be paid for the number of bags she rakes as follows: two cents for one bag, four cents for two bags, eight cents for three bags, and so on with the amount doubling for each additional bag.

| Bags | Option 1 | Option 2 |
| :--- | :---: | :---: |
| 1 | 2 | .02 |
| 2 | 4 | .04 |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| 6 |  |  |
| 7 |  |  |
| 8 |  |  |
| 9 |  |  |
| 10 |  |  |
| 11 |  |  |
| 12 |  |  |
| 13 |  |  |
| 14 |  |  |
| 15 |  |  |



1. If Celia rakes five bags of leaves, should she opt for payment method 1 or 2 ? What if she rakes ten bags of leaves?
2. How many bags of leaves does Celia have to rake before method 2 pays more than method 1?
3. Describe the differences in payment plans.
4. Describe the difference in the way the payment grows in the table and on the graph.
5. Is this growth situation continuous or discrete? How do you know?
