Key
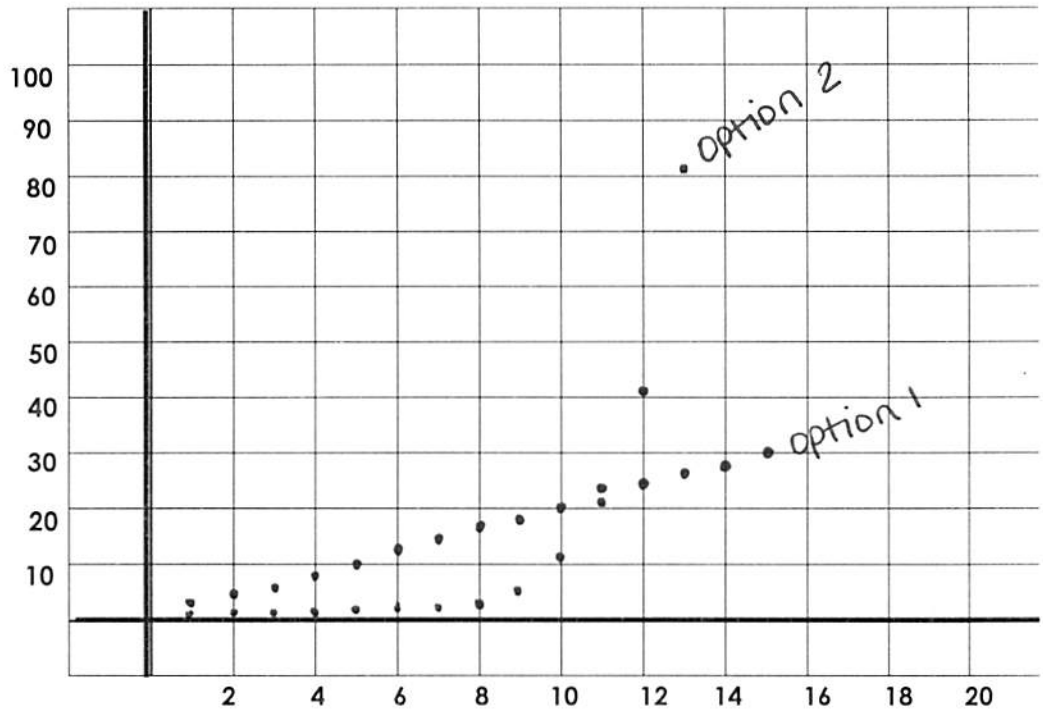
Mr. Wiggins gives his daughter Celia two choices of payment for raking leaves:
- **Choice 1**: Two dollars for each bag of leaves,
- **Choice 2**: She will be paid for the number of bags she rakes as follows: two cents for one bag, four cents for two bags, eight cents for three bags, and so on with the amount doubling for each additional bag.

Bags	Option 1	Option 2
1	2	.02
2	4	.04
3	6	0.08
4	8	0.16
5	10	0.32
6	12	0.64
7	14	1.28
8	16	2.56
9	18	5.12
10	20	10.24
11	22	20.48
12	24	40.96
13	26	81.92
14	28	163.84
15	30	327.68

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?

Option 1 both times

2. How many bags of leaves does Celia have to rake before method 2 pays more than method 1?

12 bags

3. Describe the differences in payment plans.

Option 1 is a constant rate per bag
Option 2 is not constant + so the pay changes.

4. Describe the difference in the way the payment grows in the table and on the graph.

Option 1 is Linear
Option 2 is Exponential

5. Is this growth situation continuous or discrete? How do you know?

Discrete because money + bags of leaves are discrete data.