**Pledge Plan**

I. Several students who are participating in a 10k walk-a-thon to raise money for charity need to decide on a plan for sponsors to pledge money. Jeff thinks $1.50 per kilometer would be an appropriate pledge. Rachel suggests $2.50 per kilometer because it would bring in more money. Annie says that if they ask for too much money, people won’t agree to be sponsors; she suggests they ask for a donation of $4 and then $0.75 per kilometer.

|  |  |  |
| --- | --- | --- |
| Jeff’s Plan | Rachel’s Plan | Annie’s Plan |
|

|  |  |
| --- | --- |
| Distance | Money Raised |
| 0 km | $ 0 |
| 1 km |  |
| 2 km |  |
| 3 km |  |
| 4 km |  |
| 5 km |  |
| 6 km |  |
| 7 km |  |
| 8 km |  |
| 9 km |  |
| 10 km |  |

 |

|  |  |
| --- | --- |
| Distance | Money Raised |
| 0 km | $ 0 |
| 1 km |  |
| 2 km |  |
| 3 km |  |
| 4 km |  |
| 5 km |  |
| 6 km |  |
| 7 km |  |
| 8 km |  |
| 9 km |  |
| 10 km |  |

 |

|  |  |
| --- | --- |
| Distance | Money Raised |
| 0 km | $ 4 |
| 1 km |  |
| 2 km |  |
| 3 km |  |
| 4 km |  |
| 5 km |  |
| 6 km |  |
| 7 km |  |
| 8 km |  |
| 9 km |  |
| 10 km |  |

 |



Distance (km)

1

2

3

4

5

6

7

8

9

10

Money Raised

2

4

6

8

10

12

14

16

18

20

22

24

26

28

30

II. On the graph paper provided, graph all three pledge plans on the same coordinate grid. Use different colored lines to connect the points. Be sure to include a title, label the axes with intervals marked, and a key to indicate each plan.

III. For each of the three pledge plans, use words to describe the relationship

 between the money earned and the distance walked.

 Jeff’s Plan-

 Rachel’s Plan-

 Annie’s Plan-

IV. For each of the different pledge plans:

 a) Write a NOW-NEXT rule, be sure to include the starting number.

 b) Using *p* to compute the money owed under each pledge plan, given the

 distance the student walks. Use *d* to represent distance.

 Jeff’s Plan:

 a)

 b)

 Rachel’s Plan:

 a)

 b)

 Annie’s Plan:

 a)

 b)

V. Study the rate of change (slope) and the y-intercept in each of the four

 representations (table, graph, description, and rule).

 a) Give the rate of change (slope) in each of the plans. Was one representation

 easier than the others to find rate of change? Which one and Why?

 b) What was the y-intercept in each plan and was one representation easier for

 finding it?

VI. Analyze the problem by answering the following questions:

 1) Describe how increasing the amount of pledge per kilometer affects

 the tables, the graphs and the equations?

 2) Describe what is different about Annie’s plan.