## Saving for a Rainy Day

RAINBOW GROUP DIRECTIONS:


1. Compare the savings of the four children.

- Use words like:
- "the savings increase (or decrease)"
- "the savings increase or decrease at a rate of...",
- "who has a larger (or smaller) amount at the beginning (or end),"
o "larger (or smaller) by..., double..., equal"
- Use tables, graphs, expressions, and explanations.

2. Joe is another child saving his money. Create a savings plan for him. His plan should be different from the other children's. Represent the savings plan using a table, a graph, words, and an expression and compare it to the other children's savings plans.

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## Assessment

Jay wanted to find how much Dina had saved by the end of the $15^{\text {th }}$ week. Kaitlyn suggested continuing the table a


| Week | 11 | 12 | 13 | 14 | 15 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Amount | 77 | 84 | 91 | 98 | 105 |

She looked at the table and found that the amount is $\$ 105$. Monty claimed that he had another way. Since Dina had no savings at the beginning of the year, and her savings increased by 7 each week, she would have 7 times the number of weeks - that is, 7 * $15=105$. Do you think that both methods are correct? Which method do you prefer?

Using a graphing calculator, a spreadsheet program or paper \& pencil, create a table and a graph to represent Danny's and Moshon's savings during the year.

Note which representation (table or graph) that you used to answer each question below:

1. How much had Moshon saved after half a year? How much did Danny have at the same time?
2. After how many weeks did each of the two children have $\$ 210$ ?
3. When was the difference between their savings $\$ 60$ ? In whose favor was the difference?
4. Find the week with the largest difference between their savings.
5. Find the week when their savings were equal.
6. Find the week when the savings of one person were double that of the other person. In whose favor?
7. Danny and Moshon decided to put their savings together in order to by a $\$ 400$ video game system. Find the week in which they could buy the video game system.

## Saving for a Rainy Day

Moshon's savings changed during the last year, as described below. The numbers indicate amounts of money (in dollars) at the end of each week.

The graph describes Moshon's savings at the end of each of
 the first 20 weeks. The graph continues in the same way for the rest of the year.


## COLOR GROUP DIRECTIONS:

1. Analyze the information presented and draw some conclusions.
2. What is the amount of money at the end of week 6 ?
3. What is the amount of money at the end of week 26 ?
4. At the end of what week would Moshon have saved $\$ 300$ ?
5. Write an equation to show how Moshon's savings change throughout the year.

## Saving for a Rainy Day

Danny's savings changed during the last year, as described below. indicate amounts of money (in dollars) at the end of each week.

Danny's savings can be described by the expression $300-5 x$, where x stands for the number of weeks.


## COLOR GROUP DIRECTIONS:

1. Analyze the information presented and draw some conclusions.
2. What is the amount of money at the end of week 6 ?
3. What is the amount of money at the end of week 26 ?
4. At the end of what week would Danny have saved $\$ 300$ ?
5. Make a graph that represents how Danny's savings change throughout the year.

## Saving for a Rainy Day

Yonni's savings changed during the last year, as described below. The numbers indicate amounts of money (in dollars) at the end of each week.


Yonni kept his savings at $\$ 300$ throughout the year.

## COLOR GROUP DIRECTIONS:

1. Analyze the information presented and draw some conclusions.
2. What is the amount of money at the end of week 6 ?
3. What is the amount of money at the end of week 26 ?
4. At the end of what week would Yonni have saved $\$ 300$ ?
5. Make a table of values to show how Yonni's savings change throughout the year.

## Saving for a Rainy Day

Dina's savings changed during the last year, as described below. The numbers indicate amounts of money (in dollars) at the end of each week.


The table shows how much money Dina had saved at the end of each week. The table continues in the same way for the rest of the year.

| Week | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | $9 \ldots$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Amount | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | $63 \ldots$ |

## COLOR GROUP DIRECTIONS:

1. Analyze the information presented and draw some conclusions.
2. What is the amount of money at the end of week 6 ?
3. What is the amount of money at the end of week 26 ?
4. At the end of what week would Dina have saved $\$ 300$ ?
5. Write an equation to show how Dina's savings changes throughout the year.

## Saving for a Rainy Day

## DINA

Dina's savings changed during the last year, as described below. The numbers indicate amounts of money (in dollars) at the end of each week.

The table shows how much money Dina had saved at the end of each week. The table continues in the same way for the rest of the year.

| Week | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | $9 \ldots$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Amount | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | $63 \ldots$ |

## MOSHON

## DANNY

Danny's savings changed during the last year, as described below. The numbers indicate amounts of money (in dollars) at the end of each week.

Danny's savings can be described by the expression $300-5 x$, where $x$ stands for the number of weeks.

## YONNI

Yonni's savings changed during the last year, as described below. The numbers indicate amounts of money (in dollars) at the end of each week.

Yonni kept his savings at \$300 throughout the year.

Moshon's savings changed during the last year, as described below. The numbers indicate amounts of money (in dollars) at the end of each week.

The graph describes Moshon's savings at the end of each of the first 20 weeks. The graph continues in the same way for the rest of the year.

week \#

