## Tiling the Back Walk

Mrs. Ramirez is tiling her back walk and has designed her own hexagon mosaic tiles. They consist of: trapezoids, rhombii, and triangles. The perimeter of the space she has outlined is 106 ft ., and she only wants one tile across.

## How much will it cost to tile Mrs. Ramirez's back walk?

## Each mosaic tile contains:

- 6 trapezoids
- $1 / 2 \mathrm{ft}$ on the short sides
- 1 ft on the long side
- 2 rhombii
- $1 / 2 \mathrm{ft}$ on each side
- 2 triangles
- $1 / 2 \mathrm{ft}$ on each side


The cost for each individual tile is:

- Trapezoid - \$3/tile
- Parallelogram - \$2/tile
- Triangle - $\$ 1 /$ tile


1 mosaic tile
a
Project
GRAD

## Tiling the Back Walk

PICTORIAL: Build and then draw the next pattern

VERBAL: Describe how you see the perimeter of this element constructed?

TABLE: Complete the table below.

| \# of <br> Hexagons | EQUATION <br> "RULE" | Perimeter |
| :---: | :---: | :---: |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 20 |  |  |
| 100 |  |  |

EQUATION: Write an equation using SYMBOLS to determine the perimeter for any number of hexagon tiles.

## Jacob's Birthday Party

Jacob's family was setting up tables for his birthday party. They didn't want any of the kids to feel left out, so they decided to push all of the small tables together to make one long table for everyone.


1 small table


2 small tables


3 small tables

## How many tables does Jacob need for 54 guests?

Be sure to include the following in your poster:

- Pictorial representation of how you see the pattern growing
- Function to represent how the pattern grows
- Verbal description of your solution

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| PICTORIAL: Build and then draw the next figure. |  |  |  |
| :---: | :---: | :---: | :---: |
| VERBAL: Describe how you see each of the figures constructed? |  |  |  |
| TABLE: Complete the table below. |  |  | EQUATION: Write an equation using SYMBOLS to determine number of seats for any number of tables. |
| Table Number | "RULE" | Number of seats |  |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| 20 |  |  |  |

## Party with Peeps

You may find this surprising, but during the Spring months, there are more Peeps sold than jelly beans in the United States. I am having a party, and I want to give 2 Peeps to each my guests as a part of a party favor bag. Because the Peep rush has ended, Haribo (the makers of Peeps) is having a special promotion. For each package of Peeps that you order, you get 2 free Peeps as a gift.


- How many packages of peeps should I order for my 84 guests?
- How many Peeps will I be paying for and how many will be free?


## Be sure to include the following in your poster:

- Pictorial representation of how you see the pattern growing
- Function to represent how the pattern grows
- Verbal description of your solution


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PICTORIAL: Build and then draw the next figure.

VERBAL: Describe how you see each of the figures constructed?

TABLE: Complete the table below.

| Table <br> Number | "RULE" | Total Peeps |
| :---: | :---: | :---: |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| 20 |  |  |

EQUATION: Write an equation using SYMBOLS to determine total number of Peeps for any number of packages ordered.

