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### 1.2.2 Fencing a Paddock (S)

Date: $\qquad$ Period: $\qquad$

High Meadow Stables needs to replace the post and rail fence around one of their paddocks. Your job is to determine how many posts and how many rails they'll need. Pictured below is one section of fence.


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1. Complete the table below. Make a sketch on the back to help you get started.

| Sections <br> $n$ | Posts <br> $P$ |
| :---: | :---: |
|  |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |


| Sections <br> $n$ | Rails <br> $R$ |
| :---: | :---: |
|  |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |

2a. Describe a rule for the number of posts.
b. Write a formula for the number of posts.

3a. Describe a rule for the number of rails.
b. Write a formula for the number of rails.
4. The paddock at High Mountain Stables is a $104^{\prime} \times 64^{\prime}$ rectangle. Each fence section is 8 feet wide from the center of one post to the center of the next post; how many sections will they need? Use the sketch on the back if you need to.

5. How many posts will they need? Show work or explain your answer.
6. How many rails will they need? Show work or explain your answer.

Make a sketch of a few fence sections:

Here is the paddock at High Meadow Stables:


