***The Number Devil* – Reading Notes Chapter 4**

Take notes as you read chapter 2.

**1. The pretzel problem keeps creeping into the story, do you want to try to solve it?**

*If 1/3 of 33 bakers can make 89 pretzels in 2 ½ hours, then how many pretzels can 5 ¾ bakers make in 1 ½ hours? (Is it possible to solve it?)*

**2. Can you use one of the Number Devil’s examples from this chapter to explain what he means by,** *“still not quite one….”*

**3. What does the Number Devil mean by “the rutabaga of two is an unreasonable number?” (p. 78)**

4. **Read pages 80-82 carefully. Recreate the explanation on page 82 and write it here:**

**\*\* This is a really big idea in math, can you explain it again in your own words? Define an unreasonable number?**

**Odd Squares!**

The sum of consecutive odd numbers forms square numbers. Us the chart below to illustrate this fascinating math concept!

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Number** | **Square Number** | **Sum of Odd Number** | **Number of unit squares colored** | **color** |
| 1 | 1 | 1 | 1 | white |
| 2 | 4 | 1 + 3 | 3 | yellow |
| 3 |  | 1 + 3 + 5 | 5 | orange |
| 4 |  |  |  | blue |
| 5 |  |  |  | green |
| 6 |  |  |  | purple |
| 7 |  |  |  | red |
| 8 |  |  |  | pink |
| 9 |  |  |  | grey |
| 10 |  |  |  | black |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **black** |  |  |  |  |  |  |  |  |  |  |
| **grey** |  |  |  |  |  |  |  |  |  |  |
| **pink** |  |  |  |  |  |  |  |  |  |  |
| **red** |  |  |  |  |  |  |  |  |  |  |
| **purple** |  |  |  |  |  |  |  |  |  |  |
| **green** |  |  |  |  |  |  |  |  |  |  |
| **blue** | 4 | 4 | 4 | 4 |  |  |  |  |  |  |
| **orange** | 3 | 3 | 3 | 4 |  |  |  |  |  |  |
| **yellow** | 2 | 2 | 3 | 4 |  |  |  |  |  |  |
| **white** | 1 | 2 | 3 | 4 |  |  |  |  |  |  |
|  | **white** | **yellow** | **orange** | **blue** | **green** | **purple** | **red** | **pink** | **grey** | **black** |