***The Number Devil* – Reading Notes Chapter 3**

Take notes as you read chapter 2.

**1. Why doesn’t Robert like division? What does the Number Devil prove using the number 19? (p. 54)**

**2. List as many divisibility rules as you can, using either your own background knowledge or examples from the Number Devil.**

**3. According to the Number Devil (p.55), there are two types of numbers, the garden**

**variety and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (like 11, 13, 17, 19 etc.)**

**4. The real math term for the garden variety numbers are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

**5. The real math term for the prima donnas are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

**6. What 2 whole numbers are neither? \_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Explain why.**

**7. In the book, Robert and the Number Devil found the Prima Donnas up to 50.**

**Find all the prima donnas up to 100. Complete the chart by crossing out all the garden variety and circle all the prima donnas.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** |
| **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** |
| **31** | **32** | **33** | **34** | **35** | **36** | **37** | **38** | **39** | **40** |
| **41** | **42** | **43** | **44** | **45** | **46** | **47** | **48** | **49** | **50** |
| **51** | **52** | **53** | **54** | **55** | **56** | **57** | **58** | **59** | **60** |
| **61** | **62** | **63** | **64** | **65** | **66** | **67** | **68** | **69** | **70** |
| **71** | **72** | **73** | **74** | **75** | **76** | **77** | **78** | **79** | **80** |
| **81** | **82** | **83** | **84** | **85** | **86** | **87** | **88** | **89** | **90** |
| **91** | **92** | **93** | **94** | **95** | **96** | **97** | **98** | **99** | **100** |

**7. The Number Devil claims that any even number larger than two can be created by adding two prima donnas together. Show that it works for the following.**

**48 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 100 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**56 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 40 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**You pick a number and try it! \_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**8. On page 64, it claims that any number larger than 5 can be created by adding 3 prima donnas together. Can you prove it?**

**10 = \_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 40 = \_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_**

**100 = \_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_ 55 = \_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_**

**You pick a number of your choice and try \_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_+ \_\_\_\_\_\_\_\_\_\_\_\_\_**

**9. Try the activity on page 64:**

***And you? Let me show you one last trick — If you haven’t dozed off, that is. It works with odd as well as even numbers. Think of a number any number, so long as it’s bigger than five. Fifty-five say, or twenty seven. You can find the prima-donna numbers that add up to them too. Only instead of two you’ll need three. Let’s use fifty-five as our example:***

***55= 5 + 19 + 31***

***Now try twenty-seven. It always work \_ you’ll see \_ though I can’t explain why>***