

#### **Grade 2: Number Stories**

Number Stories is a lesson structure in the Success Academy conceptual math curriculum. It is based on the <u>Cognitively Guided Instruction</u> model. Number Stories teaches students to unpack and solve complex, unfamiliar problems to develop mathematical thinking and problem-solving skills, explain their thinking and construct mathematical arguments, build an understanding of grade-level conjectures and concepts, and apply concepts, strategies, and models learned in math and mini-lessons to novel contexts.

In Grades K-2, students work to solve a problem during Number Stories. The Number Stories block happens 3-4 times per week for approximately 40 minutes.

### 1 Omar had 83 Cheerios in his cereal bowl. Julius had 28 Cheerios in his cereal bowl. How many more Cheerios does Omar have than Julius?

- Comprehension Question: CDU problems do not have a comprehension question. But you can ask: What are you imagining? What is happening?
- Type: CDULevel: II
- Answer: 55 more Cheerios
- Number Sentence to Match the Story: 83-28=

#### 2 I have 108 scarves and Mrs. Ansari only has 39 scarves. How many more scarves do I have than Mrs. Ansari?

- Comprehension Question: CDU problems do not have a comprehension question. But you can ask: What are you imagining? What is happening?
- Type: CDU
- Level: II
- Answer: 69 more scarves
- Number Sentence to Match the Story: 108-39=

#### 3 I have 8 trays of cookies. There are 6 cookies on each tray. How many cookies do I have?

- Comprehension Question: Do I have more or less than 6 cookies?
- Type: M
- Level: II
- Answer: 48 cookies
- Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are expected to write the number sentence that matches their work.

#### **4** Ms. Chang ordered 7 pizza pies. There are 5 pepperonis and 3 tomatoes on each pizza. How many toppings are there in all?

- Comprehension Question: Are there more or less than 7 toppings in all?
- Type: M Complex

- Level: II
- Answer: 56 toppings
- Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are expected to write the number sentence that matches their work.

### **5** Genesis has 42 crayons that she wants to put into boxes. She put 7 crayons in each box. How many boxes will she have?

- Comprehension Question: Will she have more or less than 42 boxes?
- Type: MDLevel: II
- Answer: 6 boxes
- Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are expected to write the number sentence that matches their work.

#### 6 I need to buy 46 tomatoes. 8 tomatoes fit in each bag. How many bags do I need?

- Comprehension Question: Do I need more or less than 46 bags?
- Type: MD Remainder
- Level: II
- Answer: 6 bags
- Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are expected to write the number sentence that matches their work.

### 7 I had 53 soccer balls. I put the soccer balls into 4 bags with the same number of soccer balls in each bag. How many soccer balls are in each bag?

- Comprehension Question: Are there more or less than 53 soccer balls in each bag?
- Type: PD Remainder
- Level: II
- Answer: 13 soccer balls (Note: 1 ball leftover)
- Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are expected to write the number sentence that matches their work.

## 8 Ms. Jones had some pennies in her penny jar. She collected 36 more pennies. Now she has 105 pennies in her jar. How many pennies did she start with?

- Comprehension Question: Did she start with more or less than 105 pennies?
- Type: JSULevel: IV
- Answer: 69 pennies
- Number Sentence to Match the Story: +36=105

# **9** Atalia saw some ants on a picnic table. Then 48 more ants crawled on the table. Another 29 ants crawled on the table. Now there are 123 ants on the table. How many ants did she see at first?

- Comprehension Question: Did she see more or less than 123 ants at first?
- Type: JSU Complex
- Level: IV
- Answer: 46 ants
- Number Sentence to Match the Story: +48+29=123

# 10 Jamar has 27 blue marbles and 56 red marbles in a jar. He takes some of the marbles out of the jar. Now he has 19 marbles left in his jar. How many marbles did Jamar take out?

- Comprehension Question: What is happening in the story? What are you imagining in your head?
- Type: JRU/SCU Complex
- Level: III
- Answer: 64 marbles
- Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are expected to write the number sentence that matches their work.

# 11 I saw 93 animals at the park. 56 were squirrels, 18 were pigeons, and the rest were dogs. How many dogs did I see?

- Comprehension Question: Did I see more or less than 93 dogs?
- Type: PPPW-PU Complex
- Level: III
- Answer: 19 dogs
- Number Sentence to Match the Story: 56+18+\_=93 or 93=56+18+\_

### **12** There are 114 flowers in my vase. 69 are white, 28 are pink, and the rest are yellow. How many yellow flowers are in my vase?

- Comprehension Question: Are there more or less than 114 yellow flowers in my vase?
- Type: PPPW-PU Complex
- Level: III
- Answer: 17 yellow flowers
- Number Sentence to Match the Story: 69+28+\_=114 or 114=69+28+\_

# 13 Michelle has 46 green fish and 79 black fish in her aquarium. She decides to give some of the fish to her sister. Now she has 57 fish in her aquarium. How many fish did Michelle give to her sister?

- Comprehension Question: What is happening in the story? What are you imagining in your head?
- Type: JRU/SCU Complex
- Level: III
- Answer: 68 fish
- Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are expected to write the number sentence that matches their work.

# **14** Kristian had some money. He spent 37 dollars on a Wii game at the store. Now he has 55 dollars left. How much money did Kristian start with?

- Comprehension Question: Did he start with more or less than 55 dollars?
- Type: SSU
- Level: IV
- Answer: 92 dollars
- Number Sentence to Match the Story: -37=55

# 15 Dane baked some cookies. He gave away 32 cookies to the scholars in NYU. He gave away 48 cookies to the scholars in Harvard. Now he has 29 cookies. How many cookies did Dane start with?

- Comprehension Question: Did he start with more or less than 48 cookies?
- Type: SSU Complex

- Level: IV
- Answer: 109 cookies
- Number Sentence to Match the Story: \_-32-48=29

#### **16** Devon has 47 blocks in his tower. How many more blocks does Devon need to have 116 blocks?

- Comprehension Question: Does he need more or less than 116 blocks?
- Type: JCU
- Level: III
- Answer: 69 blocks
- Number Sentence to Match the Story: 47+ =116

### 17 Roy has 24 pennies in his coin collection. He also has 37 nickels in his coin collection. How many more coins does he need to have 112 coins?

- Comprehension Question: Does he need more or less than 112 coins?
- Type: PPW/JCU
- Level: III
- Answer: 51 coins
- Number Sentence to Match the Story: 24+37+ =112

# **18** David ate 55 peanuts. Manny ate 76 more peanuts than David. How many peanuts did Manny eat?

- Comprehension Question: Did Manny eat more or less than 76 peanuts?
- Type: CQU
- Level: IV
- Answer: 131 peanuts
- Number Sentence to Match the Story: 55+76=\_

# **19** Fernando built a tower of 47 blocks. Nijea built a tower with 58 more blocks than Fernando. Mary built a tower with 34 more blocks than Nijea. How many blocks did Mary use for her tower?

- Comprehension Question: Did Mary use more or less than 58 blocks?
- Type: CQU Complex
- Level: IV
- Answer: 139 blocks
- Number Sentence to Match the Story: 47+58+34 =

# 20 Robin has 92 cents in her piggy bank. She has 26 cents more than Kayla. How much money does Kayla have?

- Comprehension Question: Does Kayla have more or less than 92 cents?
- Type: CRU
- Level: IV
- Answer: 66 cents
- Number Sentence to Match the Story: 92-26 =\_

21 Nyla read 58 books in June and 67 books in July. In all, Nyla read 39 more books than Zaire read over the summer. How many books did Zaire read over the summer?

- Comprehension Question: What's happening in the story? What are your imagining/picturing in your head?
- Type: JRU/CRU Complex
- Level: IV
- Answer: 86 books
- Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are expected to write the number sentence that matches their work.

# 22 I need to make a snack for 12 scholars. I want to give one fourth of a graham cracker to each scholar. How many graham crackers will I need?

- Comprehension Question: Do I need more or less than 12 graham crackers?
- Type: M-MG
- Level: IV
- Answer: 3 graham crackers
- Number Sentence to Match the Story or Work: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are NOT expected to write the number sentence that matches their work.

### 23 I have 9 kittens. I want to give each kitten one third of a can of tuna. How many cans of tuna do I need?

- Comprehension Question: Do I need more or less than 9 cans of tuna?
- Type: M-MG
- Level: IV
- Answer: 3 cans of tuna
- Number Sentence to Match the Story or Work: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are NOT expected to write the number sentence that matches their work.

### 24 Ms. Reid has 65 stickers that she wants to put in rows in her sticker book. Each row fits 4 stickers. How many full rows of stickers will Ms. Reid have?

- Comprehension Question: Does she have more or less than 65 full rows of stickers?
- Type: MD w/ remainder
- Level: II
- Answer: 16 rows (only acceptable answer, okay if scholars add that there is 1 sticker leftover)
- Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are expected to write the number sentence that matches their work.

### **25** Ms. Davis has 75 apples that she wants to put in boxes. She can fit 8 apples into each box. How many boxes will Ms. Davis fill?

- Comprehension Question: Will she fill more or less than 75 boxes?
- Type: MD w/ remainder
- Level: II
- Answer: 9 boxes (only acceptable answer, okay if scholars add that there are 3 leftover apples)
- Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are expected to write the number sentence that matches their work.

## **26** Ms. Burress had some prizes. She gave out 46 of them to 1st grade scholars. Then she had 57 left. How many prizes did Ms. Burress start with?

• Comprehension Question: Did she start with more or less than 57 prizes?

- Type: SSULevel: IV
- Answer: 103 prizes
- Number Sentence to Match the Story or Work: \_ 46 = 57

# **27** Ms. Diaz had some crayons. She lost 63 of them. She broke 35 of them. Now she has 48 crayons left. How many crayons did she have to start with?

- Comprehension Question: Did she start with more or less than 63 crayons?
- Type: SSU Complex
- Level: IV
- Answer: 146 crayons
- Number Sentence to Match the Story or Work: -63 35 = 48

# **28** Alyssa had 66 scholar dollars. She earned some scholar dollars. Now she has 133 scholar dollars. How many scholar dollars did Alyssa earn?

- Comprehension Question: Did Alyssa earn more or less than 133 scholar dollars?
- Type: JCU
- Level: III
- Answer: 67 scholar dollars
- Number Sentence to Match the Story: 66 + = 133

#### **29** Genesis collected 39 flowers. Then she collected 28 flowers. How many more flowers does she need to have 126 flowers?

- Comprehension Question: Does she need more or less than 126 flowers?
- Type: JCU Complex
- Level: III
- Answer: 59 flowers
- Number Sentence to Match the Story: 39 + 28 + = 126

#### 30 4 children each want one-fourth of a pizza. How many pizzas do I need?

- Comprehension Question: Do I need more or less than 4 pizzas?
- Type: M-MG
- Level: II
- Answer: 1 pizza
- Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are NOT expected to write the number sentence that matches their work.

# 31 There are 6 cats and 5 dogs at a park. If each dog gets one-fourth of a treat and each cat gets two-fourths of a treat, how many treats will they eat altogether?

- Comprehension Question: Multi-step: Ask scholars what are they picturing/imagining. What is happening in the story?
- Type: M-MG
- Level: II
- Answer: 4 treats
- Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
- NOTE: Scholars are NOT expected to write the number sentence that matches their work.

# **32** Andrew has \$96. He wants to buy a new bike and a helmet. The prices at Emmanuel's Sports Emporium are shown below. How many more dollars does he need to buy both items?

- Comprehension Question: Multi-step: Ask scholars what are they picturing/imagining. What is happening in the story?
- Type: JCULevel: III
- Answer: 51 dollars
- Number Sentence to Match the Story: 96 + = 124 + 23
- 33 Three years ago Malik measured 85 centimeters tall. Over the past three years Malik grew to be 121 centimeters tall. If Malik grew the same amount each year for the 3 years, how many centimeters did Malik grow each year?
  - Comprehension Question: Multi-step: Ask scholars what are they picturing/imagining. What is happening in the story?
  - Type: JCU/MDLevel: N/A
  - Answer: 12 centimeters
  - Number Sentence to Match the Story: Scholars are NOT expected to write this number sentence.
  - NOTE: Scholars should attempt to write the number sentence that matches their work.
- **34** Liza had \$152 dollars saved up. She earned \$39 more dollars from doing chores. Then Liza spent \$46 at the store on some new earnings. How much money does Liza have now?
  - Comprehension Question: Does Liza have more or less than \$152?
  - Type: Compound JRU/SRU
  - Level: I
  - Answer: \$145
  - Number Sentence to Match the Story: 152+39-46=
- 35 Ben had a bag of 169 M&Ms. He got 25 more M&Ms from his brother. Then he ate 37 M&Ms. How many M&Ms does he have now?
  - Comprehension Question: Does Ben have more or less than 169 M&Ms?
  - Type: Compound JRU/SRU
  - Level: I
  - Answer: 157 M&Ms
  - Number Sentence to Match the Story: 169+25-37=\_\_\_
- 36 Dog biscuits at Pet Paradise are sold in bags of 10 or singles. Pet Paradise records their dog biscuit sales by marking their ledger (shown below) with a check each time they sell a bag of 10 or a single biscuit. If they started with 143 biscuits, how many biscuits are left after Tuesday?
  - Comprehension Question: Does she have more or less than 143 stickers left?
  - Type: Complex SRU
  - Level: I
  - Answer: 58 biscuits
  - Number Sentence to Match the Story: 143 37 48 =

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