Third Grade Cluster 2 CFA
Teacher Guide

This assessment assesses students' ability to:

- Solve one-step and two-step addition and subtraction problems within 1,000 using strategies based on properties of addition
- Use place value and number lines to round numbers to the nearest ten or hundred
- Use mental math to solve addition and subtraction problems
- Use rounding and/or compatible numbers to estimate a sum or difference
- Use the relationship between addition and subtraction to add and subtract more efficiently

NCSCOS 2017 Mathematics Standards:

Standard	Questions
NC.3.NBT.2	1, 3, 4, 5, 6, 8
NC.3.OA.8	7, 9

Data Driven Instruction:

This assessment is one data point and should be used with data gathered from multiple sources to make an informed decision about each student's misconceptions and mastery.

Third Grade Cluster 2 CFA Scoring Guide

Question	Standard	Answer
1	NC.3.NBT.2	A
2	NC.2.MD.10	B
3	NC.3.NBT.2	A
4	NC.3.NBT.2	A
5	NC.3.NBT.2	C
6	NC.3.NBT.2	A
7	NC.3.OA.8	D
8	NC.3.NBT.2	A
9	NC.3.OA.8	Rubric

Rubric Scoring Guide:

Question 9 (2 points):

Student receives 1 point for each of the following bullets:

- Student subtracts 390 to show the removal of apples and adds 234 to show that apples were added to the stand (Students may add or subtract first. Order is not important in this situation).
- Student states that there were 531 apples on the stand at noon.

3rd Grade Cluster 2 CFA

1. Mallory built a house with 268 Lego bricks. She added more bricks on to make her house bigger. Now her Lego house has 645 bricks. How many Lego bricks did Mallory add on to her house?
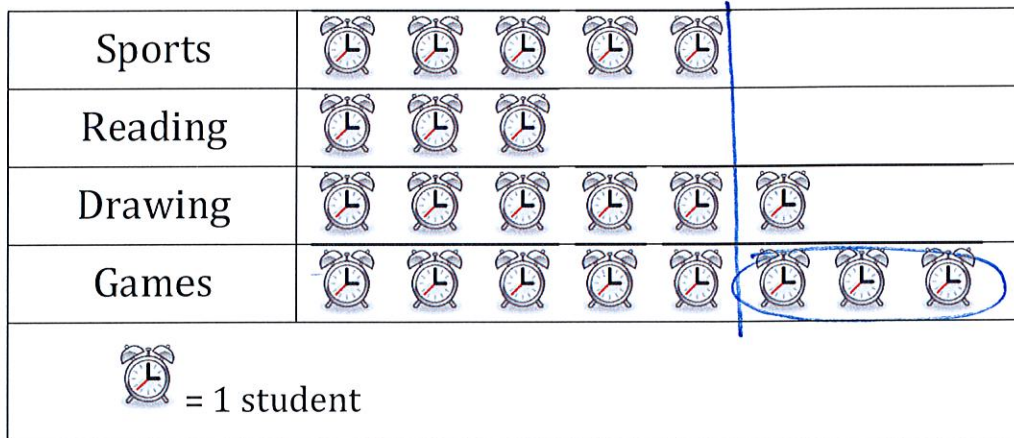
$$\begin{array}{r} 5\;13\;15 \\ \cancel{6}\cancel{4}\cancel{5} \\ -268 \\ \hline 377 \end{array}$$

   A 377   B 387

   C 477   D 913

2. Mrs. Copeland asked a group of third graders to name their favorite free time activity. She used the data to create the graph below:

Favorite Way to Spend Free Time for Third Graders

Sports	⏰ ⏰ ⏰ ⏰ ⏰
Reading	⏰ ⏰ ⏰
Drawing	⏰ ⏰ ⏰ ⏰ ⏰ ⏰
Games	⏰ ⏰ ⏰ ⏰ ⏰ ⏰ ⏰ ⏰

   ⏰ = 1 student

How many more students said games rather than sports? $8 - 5 = 3$

   A 2   B 3

   C 4   D 8

3. The manager at a store had a customer request a large number of pencils. The store sold pencils in boxes of 100, packs of 10, and as single pencils.

   • The store had 6 boxes of pencils.   600
   • The store had 23 packs of pencils.   230
   • The store had 65 single pencils.   65
                                              ____
                                              895

How many pencils did the manager have to sell to the customer?

   A 895   B 868

   C 688   D 94

4. Sunshine Elementary School has 10 classes.
   - There are 210 students in third grade.
   - 146 of the third graders are boys.

   How many girls are in third grade?

   A 64

   B 76

   C 136

   D 356

   (handwritten: 210 − 146 = 64)

5. Emily wants to estimate how many hundreds will be in the sum of 348 and 463. How many hundreds will be in Emily's total?

   (handwritten: 300 + 500 = 800)

   A 6

   B 7

   C 8

   D 9

6. Kate worked on her homework this week for 110 minutes. She worked for 28 more minutes than her sister Callie. How many minutes did her sister Callie work?

   A 82

   B 92

   C 98

   D 138

   (handwritten: 110 − 28 = 82)

7. Carlos earned $900 mowing lawns this summer.
   - He paid $257 for supplies to mow.
   - He gave $198 to his friend for helping with some of the lawns.

   After Carlos paid for supplies and gave money to his friend for helping, how much money did he have leftover?

   A $641

   B $643

   C $455

   D $445

   (handwritten: 900 − 257 = 643; 643 − 198 = 445)

8. Bryana visited her grandmother and her cousins over summer break.
   - Her grandmother lives 415 miles away.
   - Her cousins live 287 miles away.

   About how much farther did Bryana have to travel to see her grandmother?

   A 100 miles

   B 200 miles

   C 300 miles

   D 700 miles

   (handwritten: 415 − 287 = 128 → 100)

Open Response Questions

Write your response for each question below. Show your thinking.

9. Fresh Foods Grocery Store placed 687 apples on a stand.

   - 390 apples were sold by noon.
   - The store pulled the 234 apples from their storage to add to the stand at noon.

   How many apples were on the stand at noon?

   $$687 - 390$$

500	180	7
300	90	0

   200 90 7

   297

   $$297 + 234$$

200	90	7
200	30	4
400	120	11

   400
   120
    11

   531

   (531)
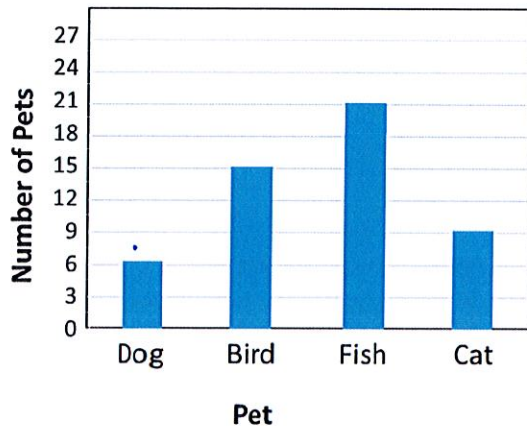
Additional MD3 Items:

1. The bar graph shows how many different kinds of pets are available at a pet store.

   How many fewer dogs and cats are available than fish and birds?

   PETS AT PET STORE

   [Bar graph: Number of Pets (y-axis, 0 to 27 by 3) vs Pet (x-axis): Dog = 6, Bird = 15, Fish = 21, Cat = 9]

   [Handwritten work:]
   Fish + Birds
   21 + 15 = 36

   dogs + cats
   6 + 9 = 15

   36
   −15
   21

   A 6

   ~~C 21~~ *(circled)*

   B 9

   D 51

2. The principal at Panthers Elementary School made a graph to show the absences in January for each grade level.
   How many more fourth grade students were absent than third grade students?

   A 2
   B 6 *(circled)*
   C 18
   D 30

   Panthers Elementary School Absences in January

Kindergarten	😲 😲 😲 😲 😲 😲
First Grade	😲 😲 😲 😲
Second Grade	😲 😲 😲 😲 😲
Third Grade	😲 😲 😲 *6* **12**
Fourth Grade	😲 😲 😲 😲 😲 **18**
Fifth Grade	😲 😲

   Each 😲 represents 4 students

23. A third grade class tracked the weather over a 4-month period. They created a bar graph to show the results.

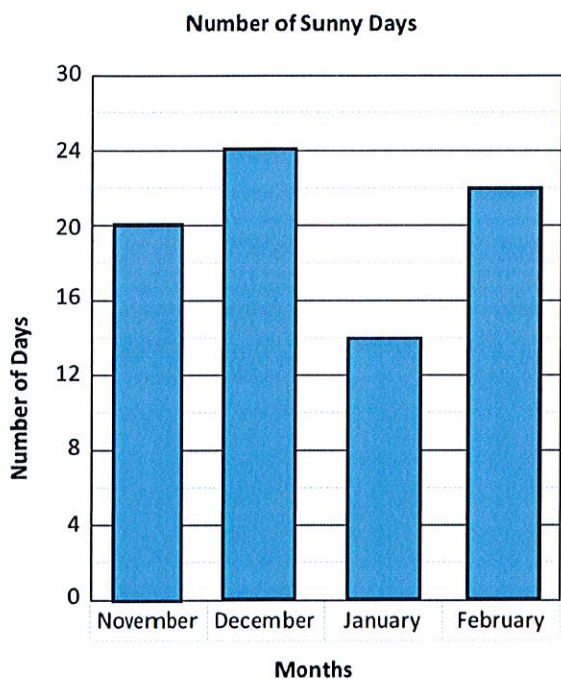How many sunny days were there over the 4-month period?

A 24
B 78
C 80
D 82

Number of Sunny Days

Number of Days

November December January February

Months

1
20
24
14
22
———
8 0