**Third Grade Cluster 4 CFA Items Assessment**

**Teacher Guide**

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**This assessment assesses students’ ability to:**

* Use equations to represent mathematical situations
* Recognize contexts that involve multiplication and division
* Connect multiplication and division situations to multiplication expressions and equations
* Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities
* Solve problems in which you need to find the number of things in a group
* Use and represent properties of operations for multiplication
* Use the relationship between multiplication and division to solve division problems

**Common Core Standards:**

This assessment addresses each of the following Common Core Standards

**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 student misconceptions and mastery.

**3rd Grade Cluster 4 CFA Items – Scoring Guide**

|  |  |  |
| --- | --- | --- |
| **Question** | **Standard** | **Answer** |
| 1 | NC.3.OA.3 | C |
| 2 | NC 3.OA.3 | B |
| 3 | NC 3.OA.3 | D |
| 4 | NC 3.OA.1 | C |
| 5 | NC 3.OA.3 | B |
| 6 | NC 3.OA.3 | D |
| 7 | NC 3.OA.3 | C |
| 8 | NC 3.OA.1 | B |
| 9 | NC 3.OA.2 | C |
| 10 | NC 3.OA.3 | B |
| 11 | NC 3.OA.3 | D |
| 12 | NC 3.OA.2 | A |
| 13 | NC 3.OA.1 | B |
| 14 | NC 3.OA.2 | D |
| 15 | NC 3.OA.3 | B |
| 16 | NC 3.OA.6 | B |
| 17 | NC 3.OA.8 | C |
| 18 | NC 3.OA.8 | C |
| 19 | NC 3.OA.8 | B |
| 22 | NC 3.OA.9 | D |
| 23 | NC 3.OA.9 | B |

Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_

**3rd Grade Cluster 4 CFA Items**

**Directions**:

Solve each problem and show your work.

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1. Ivan displayed a collection of Hot Wheels on a shelf.



* He made 6 rows.
* He put 8 cars in each row.

How many cars does Ivan have in his collection?

A 14 B 42

C 48 D 64

1. Adela has 56 dolls.  She stores them on 8 shelves.  If she puts the same number on each shelf, how many dolls will be on one shelf?

A 6 B 7

C 8 D 9

1. Tyshawn is hosting a cookout at his house this weekend.

* He bought 4 packs of hotdogs.
* Each pack contains 8 hotdogs.

How many hotdogs did Tyshawn buy for the cookout?

A 2 B 12

C 16 D 32

1. Archie has 9 model cars at home. Every car has 4 wheels. Which expression best represents how Archie would determine how many wheels he has?

A 9 + 4 B 9 - 4

C 9 x 4 D 9 ÷ 4

1. The music teacher was getting the stage ready for a performance.

* She set up 6 rows of chairs.
* Each row had 7 chairs.

How many chairs did the music teacher have on the stage?

A 13 B 42

C 54 D 56

1. Nathan collected 12 lightning bugs and put them into jars. He put an equal number in each of the 3 jars. Which equation below can be used to represent how the bugs were placed in jars?

A 12 – 3 = 9 B 12 x 3 = 36

C 12 + 3 = 15 D 12 ÷ 3 = 4

1. Betty started babysitting to earn money this summer.



* She makes $7 every day.
* She has worked 5 days.

How much money has Betty earned?

A $2 B $12

C $35 D $49

Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



**Calculator Active:** You may use a calculator on this part of the test.

1. Michael has a collection of trading cards that he put in a book. There are 10 pages in his book. Each page holds 6 cards. Which expression can be used to find the total number of trading cards Michael has?

A  10 + 6 B  10 x 6

C  10 ÷ 6 D  10 - 6

1. Which problem could be solved using the expression 36 ÷ 4?

A  Tina had 36 pieces of gum. She gave 4 pieces to a friend. How many pieces of gum does Tina have left?

B  Tina had 36 pieces of gum. She bought 4 more pieces. How many pieces does Tina have now?

C  Tina had 36 pieces of gum. She gave all of her gum to 4 friends. If she gave each friend the same number of pieces, how many pieces did she give each friend?

D  Tina had 4 friends. She gave each of them 36 pieces of gum. How many pieces of gum did Tina give away?

1. Ms. Harrison wants to rearrange the desks into rows.

* There are 28 desks in the classroom.
* She wants 4 rows of desks.

How many desks will Ms. Harrison put in each row?

A  6 B  7

C  24 D  32

1. Amanda planted a flower garden.

* She planted 8 rows of flowers.
* Each row had 4 flowers.

Which equation below represents Amanda’s flower garden?

A 8 ÷ 4 = 2 B 8 – 4 = 4

C 8 + 4 = 12 D 8 x 4 = 32

1. Four girls have 20 bracelets to share equally. How many bracelets will each girl get?

A 5 B 16

C 24 D 80

1. Which problem could be solved using the expression 8 x 4?

A Rylan has a pack with 8 pieces of gum.  She gets 4 more pieces.  How many pieces of gum does Rylan have now?

B Rylan has 8 pages of pictures in her journal.  Each page has 4 pictures.  How many pictures are in Rylan's album?

C Rylan has 8 cookies.  She wants to share them equally between 3 friends and herself.  How many cookies will Rylan and each of her friends get?

D Rylan has to read 8 chapter books this month.  She has read 4 books so far, how many books does Rylan have left to read?

1. Which of the following problems could be solved using the expression 12 ÷ 4?



A 12 children were on the playground on Sunday.  There were 4 more students on the playground on Saturday than on Sunday.  How many students were on the playground on Saturday?

B 12 families went to a piano recital.  Each family had 4 people.  How many people were at the recital?

C 12 cookies were in the cookie jar.  Someone ate 4 cookies.  How many cookies are left in the cookie jar?

D There were 12 model cars on a book shelf.  There were an equal number of cars on each of the 4 shelves.  How many cars were on each shelf?

1. Sonya has stickers to share with her Girl Scout troop.

* Sonya has 72 stickers.
* There are 8 girls in her troop.

How many stickers will each girl get?

A  6 B  9

C  64 D  576

16. Jafari has 30 toy cars.  He wants to give the toy cars to 6 of his friends.  ***S*** is the number of toy cars that Jafari will give to each friend, Which expression can Jafari use to figure out how many toy cars he should give to each friend?

A 30 x 6 = ***S*** B ***S*** x 6 = 30

C 30 - 6 = ***S*** D ***S*** + 6 = 30

17. Third grade will need 172 juice boxes for an end-of-year celebration.

* Parents have donated 9 packages of juice boxes.
* Each package has 6 juice boxes.

If ***J*** is the number of juice boxes still needed, which equation could be used to find how many juice boxes are still needed?

A   9 x 6 x ***J*** = 172 B   ***J*** x 6 + 9 = 172

C   ***J*** + 6 x 9 = 172 D   9 x 6 – ***J*** = 172

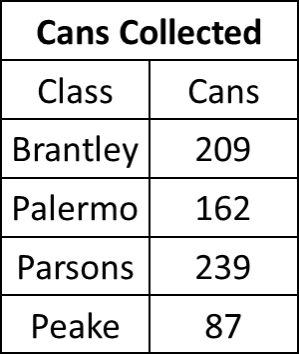
18. Tyler wants to buy a Star Wars Lego set that costs $116.  He is earning money to buy the Lego set by walking dogs for his neighbors.

* Each time Tyler walks a dog he earns $5.
* He has walked 9 dogs so far.

How much more money does Tyler need to buy the Lego set?

A $45 B $61

C $71 D $101

19. Four classes collected cans for the can food drive.  Estimate how many cans were donated by the four classes.  Round to the nearest hundred.



A 600 B 700

C 800 D 900

20. John created the following pattern for his friends:

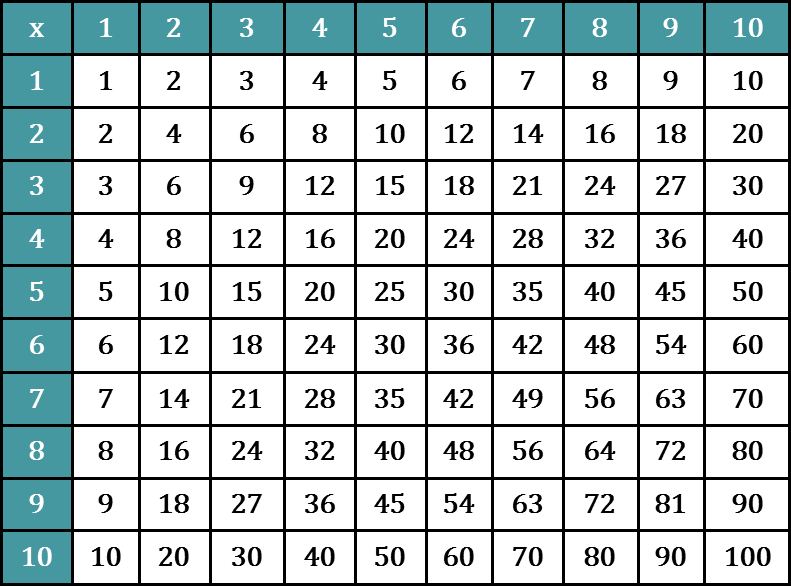
14, 29, 44, 59, \_\_\_\_, 89

What is one way that his friends could find the missing number?

A   Add 59 and 89 B   Add 15 to 89

C   Subtract 59 from 89 D   Subtract 15 from 89

21. Use this multiplication chart to decide which statement below is true.



A   All of the multiples of 3 are even.

B   All of the multiples of 2 are even.

C   Multiples of 4 can be odd or even.

D   Multiples of 7 cannot have a 0 in the ones place.