



DEPARTMENT OF EDUCATION

PAWS Mathematics Grade 4

Released Items With Data

2015

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Mathematics Released Items with Data Introduction Page / Data Definitions

This Released Items with Data document provides a subset of items from the 2014 administration of the PAWS test. The data for an item is on the page that follows that item. The following provides definitions for the data fields on the data page.

Item Information

Title: Title of the passage/stimulus the item belongs to

2012 WyCPS Domain: The reporting category of the state content standards

2012 WyCPS Standard: State content standard

Item Code: Identification code assigned to the item

Admin: The year an item is administered

Item Type: The mode in which a student responds (MC means multiple-choice)

Correct Answer: The option letter (A, B, C, or D) that corresponds to the correct answer

Item Dok: The item's Depth of Knowledge designation, also called Cognitive Complexity;

- 1 - Recall and reproduction
- 2 - Skills and concepts
- 3 - Strategic and extended thinking

Total N-count: Number of students counted as taking the test in which the item appears during the listed administration (Includes item omissions)

Pvalue/Mean Score: For a multiple-choice item, the percent of students choosing the correct answer

Score Analysis

MC Row: Answer options available for students to choose from (including those who do not choose any option); an asterisk designates the correct answer

%Choosing Row: Percent of students choosing an option (or omitting)

Item Notes: Area where user can make notes

00 A store has 6 cartons of brown eggs and 24 cartons of white eggs. The number of cartons of white eggs is how many times the number of cartons of brown eggs?

- Ⓐ 30 times
- Ⓑ 18 times
- Ⓒ 6 times
- Ⓓ 4 times

| Item Information | |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2012 WyCPS Domain: | Operations and Algebraic Thinking |
| 2012 WyCPS Cluster: | Use the four operations with whole numbers to solve problems. |
| 2012 WyCPS Standard: | 4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. |
| Item Code: | VF816159 |

| Admin: | Item Type: | Correct Answer: | Item Dok: | Total N-count: | Pvalue/Mean Score: |
|-------------|------------|-----------------|-----------|----------------|--------------------|
| Spring 2014 | MC | D | 2 | 766 | 0.578 |

| Score Analysis | | | | | |
|----------------|--------|--------|--------|--------|-------|
| MC | A | B | C | D* | Omit |
| %Choosing | 15.274 | 16.057 | 10.574 | 57.833 | 0.261 |

| Item Notes |
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| |

00 Two numbers are shown.

71,245 71,328

Which statement best compares these numbers?

- Ⓐ $71,245 < 71,328$ because $5 \times 1 < 8 \times 1$
- Ⓑ $71,245 > 71,328$ because $4 \times 1 > 2 \times 1$
- Ⓒ $71,245 < 71,328$ because $2 \times 100 < 3 \times 100$
- Ⓓ $71,245 > 71,328$ because $4 \times 100 > 2 \times 100$

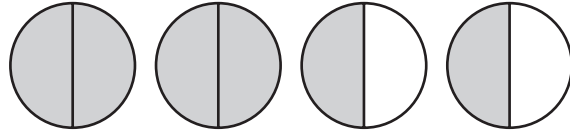
| Item Information | |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2012 WyCPS Domain: | Number and Operations in Base Ten |
| 2012 WyCPS Cluster: | Generalize place value understanding for multi-digit whole numbers. |
| 2012 WyCPS Standard: | 4.NBT.2 Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons. (Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.) |
| Item Code: | VF823196 |

| Admin: | Item Type: | Correct Answer: | Item Dok: | Total N-count: | Pvalue/Mean Score: |
|-------------|------------|-----------------|-----------|----------------|--------------------|
| Spring 2014 | MC | C | 1 | 701 | 0.519 |

| Score Analysis | | | | | |
|----------------|--------|-------|--------|-------|-------|
| MC | A | B | C* | D | Omit |
| %Choosing | 33.524 | 6.705 | 51.926 | 7.133 | 0.713 |

| Item Notes |
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| |

00 A model and an equation are shown.



$$1\frac{1}{2} + 1\frac{1}{2} = \frac{3}{2} + \frac{3}{2}$$

Based on the model, which equation must be true?

- Ⓐ $1\frac{1}{2} + 1\frac{1}{2} = 2\frac{1}{2}$
- Ⓑ $1\frac{1}{2} + 1\frac{1}{2} = 3\frac{1}{2}$
- Ⓒ $\frac{3}{2} + \frac{3}{2} = 3$
- Ⓓ $\frac{3}{2} + \frac{3}{2} = 6$

| Item Information | |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2012 WyCPS Domain: | Number and Operations— Fractions |
| 2012 WyCPS Cluster: | Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. |
| 2012 WyCPS Standard: | 4.NF.3 Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$. (Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.) |
| Item Code: | VF864104 |

| Admin: | Item Type: | Correct Answer: | Item Dok: | Total N-count: | Pvalue/Mean Score: |
|-------------|------------|-----------------|-----------|----------------|--------------------|
| Spring 2014 | MC | C | 2 | 690 | 0.38 |

| Score Analysis | | | | | |
|----------------|--------|-------|--------|--------|------|
| MC | A | B | C* | D | Omit |
| %Choosing | 27.536 | 20.87 | 37.971 | 13.623 | 0 |

| Item Notes |
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| |

00 Which equation is true?

Ⓐ $8 \times \frac{3}{8} = 24 + \frac{1}{8}$

Ⓑ $8 \times \frac{3}{8} = 24 \times \frac{1}{8}$

Ⓒ $8 \times \frac{3}{8} = \frac{3}{64}$

Ⓓ $8 \times \frac{3}{8} = 8\frac{3}{8}$

| Item Information | |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2012 WyCPS Domain: | Number and Operations— Fractions |
| 2012 WyCPS Cluster: | Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. |
| 2012 WyCPS Standard: | 4.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. (Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.) |
| Item Code: | VF880334 |

| Admin: | Item Type: | Correct Answer: | Item Dok: | Total N-count: | Pvalue/Mean Score: |
|-------------|------------|-----------------|-----------|----------------|--------------------|
| Spring 2014 | MC | B | 2 | 687 | 0.293 |

| Score Analysis | | | | | |
|----------------|--------|--------|--------|--------|-------|
| MC | A | B* | C | D | Omit |
| %Choosing | 24.745 | 29.258 | 24.017 | 21.543 | 0.437 |

| Item Notes |
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| |

00 The area of a large rectangular rug is 48 square feet. If the length of the rug is 8 feet, what is the perimeter of the rug in feet?

- Ⓐ 6 feet
- Ⓑ 14 feet
- Ⓒ 22 feet
- Ⓓ 28 feet

| Item Information | |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2012 WyCPS Domain: | Measurement and Data |
| 2012 WyCPS Cluster: | Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. |
| 2012 WyCPS Standard: | 4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor. |
| Item Code: | VF866847 |

| Admin: | Item Type: | Correct Answer: | Item Dok: | Total N-count: | Pvalue/Mean Score: |
|-------------|------------|-----------------|-----------|----------------|--------------------|
| Spring 2014 | MC | D | 2 | 687 | 0.319 |

| Score Analysis | | | | | |
|----------------|--------|--------|--------|--------|-------|
| MC | A | B | C | D* | Omit |
| %Choosing | 34.498 | 17.467 | 15.429 | 31.878 | 0.728 |

| Item Notes |
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| |

00 Jaxon drew a two-dimensional figure. The figure has two pairs of parallel sides and no right angles. Which of these could be the figure Jaxon drew?

- Ⓐ Trapezoid
- Ⓑ Rectangle
- Ⓒ Rhombus
- Ⓓ Square

| Item Information | |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2012 WyCPS Domain: | Geometry |
| 2012 WyCPS Cluster: | Draw and identify lines and angles, and classify shapes by properties of their lines and angles. |
| 2012 WyCPS Standard: | 4.G.2 Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles. |
| Item Code: | VF866686 |

| Admin: | Item Type: | Correct Answer: | Item Dok: | Total N-count: | Pvalue/Mean Score: |
|-------------|------------|-----------------|-----------|----------------|--------------------|
| Spring 2014 | MC | C | 1 | 766 | 0.415 |

| Score Analysis | | | | | |
|----------------|--------|--------|--------|-------|-------|
| MC | A | B | C* | D | Omit |
| %Choosing | 39.034 | 12.272 | 41.514 | 6.919 | 0.261 |

| Item Notes |
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