



DEPARTMENT OF EDUCATION

Leading the Drive to Top 5!

PAWS Mathematics Grade 4

Released Items With Data

2014

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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 2013 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 Which of the following should be used to add 8,947 and 1,253?

(A)
$$\begin{array}{r} ^8 ^{14} \\ 8, \cancel{9} \cancel{4} 7 \\ + 1, 2 5 3 \\ \hline 7, 6 9 4 \end{array}$$

(B)
$$\begin{array}{r} 8, 9 4 7 \\ + 1, 2 5 3 \\ \hline 9, 1 9 0 \end{array}$$

(C)
$$\begin{array}{r} ^1 \\ 8, 9 4 7 \\ + 1, 2 5 3 \\ \hline 10, 1 1 4 \end{array}$$

(D)
$$\begin{array}{r} ^1 ^1 ^1 \\ 8, 9 4 7 \\ + 1, 2 5 3 \\ \hline 10, 2 0 0 \end{array}$$

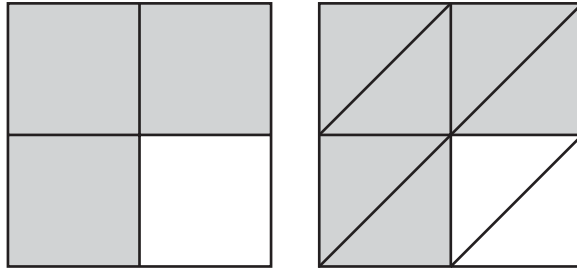
Item Information	
2012 WyCPS Domain:	Number and Operations in Base Ten
2012 WyCPS Cluster:	Use place value understanding and properties of operations to perform multi-digit arithmetic.
2012 WyCPS Standard:	4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm. (Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.)
Item Code:	VF492355

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	D	2	706	0.863

Score Analysis					
MC	A	B	C	D*	Omit
%Choosing	5.382	4.533	3.683	86.261	0.142

Item Notes

- 00 The figure shows 2 squares of the same size. Each square is divided into equal parts.



Which method can be used to find a fraction equivalent to $\frac{3}{4}$?

- Ⓐ Add 2 only to the numerator
- Ⓑ Multiply only the numerator by 2
- Ⓒ Add 4 to the numerator and add 2 to the denominator
- Ⓓ Multiply the numerator by 2 and multiply the denominator by 2

Item Information	
2012 WyCPS Domain:	Number and Operations— Fractions
2012 WyCPS Cluster:	Extend understanding of fraction equivalence and ordering.
2012 WyCPS Standard:	4.NF.1 Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions. (Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.)
Item Code:	VF493133

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	D	2	701	0.495

Score Analysis					
MC	A	B	C	D*	Omit
%Choosing	15.835	13.98	20.114	49.501	0.571

Item Notes

00 The teacher gave 12 shapes to each of 17 boys and 19 girls. Which number sentence could be used to find s , the number of shapes that the teacher gave altogether?

- Ⓐ $s = 17 \times 19 \times 12$
- Ⓑ $s = 12 + 17 + 19$
- Ⓒ $s = (17 + 19) \times 12$
- Ⓓ $s = (12 + 17) \times 19$

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.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
Item Code:	VF492321

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	C	2	723	0.545

Score Analysis					
MC	A	B	C*	D	Omit
%Choosing	17.289	21.577	54.495	6.362	0.277

Item Notes

00 Which of these shows a correct method to compare $\frac{7}{12}$ and

$$\frac{2}{3}?$$

(A) $\frac{7}{12} < \frac{11}{12}$

(B) $\frac{7}{12} < \frac{8}{12}$

(C) $\frac{7}{12} > \frac{6}{12}$

(D) $\frac{7}{12} > \frac{2}{12}$

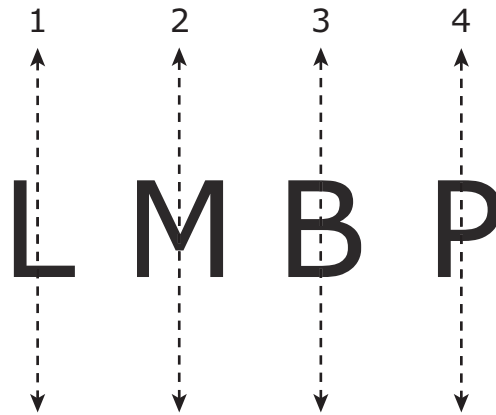
Item Information	
2012 WyCPS Domain:	Number and Operations— Fractions
2012 WyCPS Cluster:	Extend understanding of fraction equivalence and ordering.
2012 WyCPS Standard:	4.NF.2 Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model. (Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.)
Item Code:	VF493145

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	B	2	706	0.334

Score Analysis					
MC	A	B*	C	D	Omit
%Choosing	14.731	33.428	18.697	33.144	0

Item Notes

00 Which dotted line is a line of symmetry for the letter it crosses?



- Ⓐ Line 1
- Ⓑ Line 2
- Ⓒ Line 3
- Ⓓ Line 4

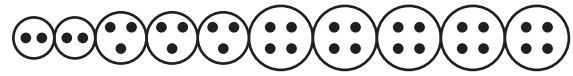
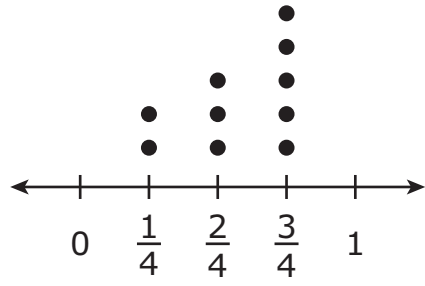
Item Information	
2012 WyCPS Domain:	Geometry
2012 WyCPS Cluster:	Draw and identify lines and angles, and classify shapes by properties of their lines and angles.
2012 WyCPS Standard:	4.G.3 Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.
Item Code:	VF493381

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	B	1	713	0.93

Score Analysis					
MC	A	B*	C	D	Omit
%Choosing	2.104	92.987	3.506	1.262	0.14

Item Notes

- 00** The line plot provided shows the width in inches of 10 buttons.



What is the total length, in inches, of all the buttons?

- (A) $1\frac{1}{2}$
- (B) $2\frac{1}{2}$
- (C) $3\frac{3}{4}$
- (D) $5\frac{3}{4}$

Item Information	
2012 WyCPS Domain:	Measurement and Data
2012 WyCPS Cluster:	Represent and interpret data.
2012 WyCPS Standard:	4.MD.4 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.
Item Code:	VF493354

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	D	2	706	0.317

Score Analysis					
MC	A	B	C	D*	Omit
%Choosing	21.105	18.98	28.045	31.728	0.142

Item Notes

