



# **PAWS**

# **Mathematics**

# **Grade 5**

## **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

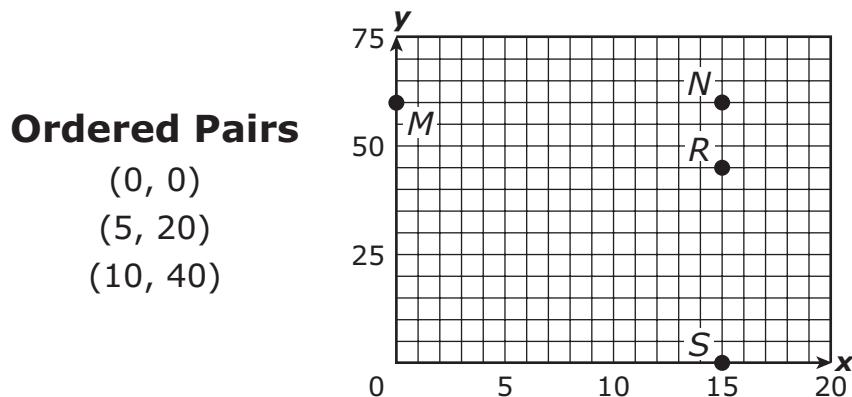
### **Score Analysis**

**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** The ordered pairs below show the relationship between two sets of numbers.



Which letter represents a point with coordinates that have the same relationship as the ordered pairs?

- (A)  $M$
- (B)  $N$
- (C)  $R$
- (D)  $S$

Item Information	
<b>2012 WyCPS Domain:</b>	Operations and Algebraic Thinking
<b>2012 WyCPS Cluster:</b>	Analyze patterns and relationships.
<b>2012 WyCPS Standard:</b>	5.OA.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.
<b>Item Code:</b>	VF741405

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2014	MC	B	2	693	0.289

Score Analysis					
MC	A	B*	C	D	Omit
%Choosing	22.078	28.86	30.159	18.903	0

Item Notes

**00** Which number has a digit with a value of  $\frac{9}{10}$  and another digit with a value of  $\frac{1}{10}$  of  $\frac{9}{10}$ ?

- (A) 3.909
- (B) 3.99
- (C) 39.9
- (D) 399.0

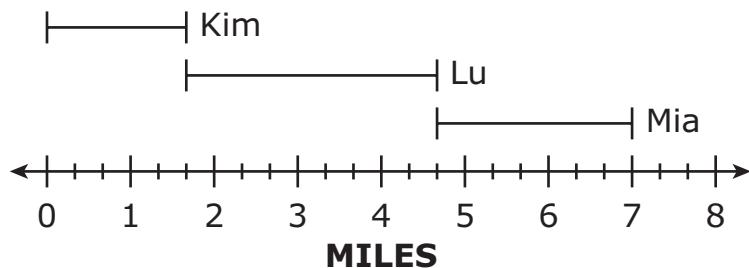
Item Information	
<b>2012 WyCPS Domain:</b>	Number and Operations in Base Ten
<b>2012 WyCPS Cluster:</b>	Understand the place value system.
<b>2012 WyCPS Standard:</b>	5.NBT.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.
<b>Item Code:</b>	VF797033

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2014	MC	B	1	697	0.482

Score Analysis					
MC	A	B*	C	D	Omit
%Choosing	15.065	48.207	31.42	4.878	0.43

Item Notes

- 00** Kim, Lu, and Mia each ran part of a 7-mile relay race. The distance each girl ran is shown on the number line.



Which of these is closest to the difference between the longest distance and the shortest distance the three girls ran?

- (A)  $\frac{2}{3}$  mile
- (B)  $1\frac{1}{3}$  miles
- (C)  $2\frac{1}{3}$  miles
- (D)  $2\frac{2}{3}$  miles

Item Information	
<b>2012 WyCPS Domain:</b>	Number and Operations—Fractions
<b>2012 WyCPS Cluster:</b>	Use equivalent fractions as a strategy to add and subtract fractions.
<b>2012 WyCPS Standard:</b>	5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result $2/5 + 1/2 = 3/7$ , by observing that $3/7 < 1/2$ .
<b>Item Code:</b>	VF823504

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2014	MC	B	2	708	0.329

Score Analysis					
MC	A	B*	C	D	Omit
%Choosing	12.853	32.91	25.565	28.39	0.282

Item Notes

**00** Mrs. Churchill had  $2\frac{1}{2}$  pounds of cheese. She used  $\frac{1}{4}$  of this cheese for a recipe. Which equation can be used to find the number of pounds of cheese Mrs. Churchill used in the recipe?

- (A)  $2\frac{1}{2} \times \frac{1}{4} = \frac{5 \times 1}{2 \times 4}$
- (B)  $2\frac{1}{2} \times \frac{1}{4} = \frac{10 \times 1}{2 \times 4}$
- (C)  $2\frac{1}{2} - \frac{1}{4} = \frac{5 - 1}{4}$
- (D)  $2\frac{1}{2} - \frac{1}{4} = \frac{10 - 1}{4}$

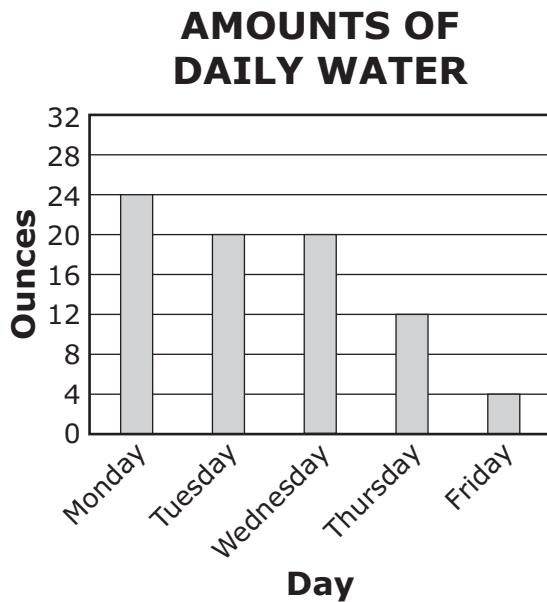
Item Information					
<b>2012 WyCPS Domain:</b>	Number and Operations—Fractions				
<b>2012 WyCPS Cluster:</b>	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.				
<b>2012 WyCPS Standard:</b>	5.NF.6 Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.				
<b>Item Code:</b>	VF864671				

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2014	MC	A	2	708	0.246

Score Analysis					
MC	A*	B	C	D	Omit
%Choosing	24.576	17.232	38.559	18.927	0.706

Item Notes

- 00** The graph shows the amount of water Allan used to water his plants for each of 5 days.



**Exactly how many cups of water did he use to water his plants altogether in 5 days?**

- (A) 10 cups
- (B) 16 cups
- (C) 72 cups
- (D) 80 cups

Item Information	
<b>2012 WyCPS Domain:</b>	Measurement and Data
<b>2012 WyCPS Cluster:</b>	Convert like measurement units within a given measurement system.
<b>2012 WyCPS Standard:</b>	5.MD.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.
<b>Item Code:</b>	VF823498

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2014	MC	A	2	704	0.075

Score Analysis					
MC	A*	B	C	D	Omit
%Choosing	7.528	5.54	7.955	78.693	0.284

Item Notes

**00** All the figures shown in the diagrams are rectangular prisms.

Diagram 1

 = 2 cubic millimeters

Diagram 2

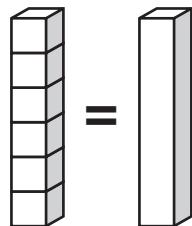
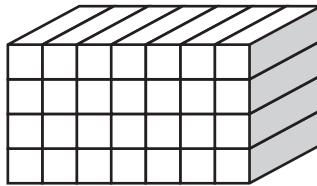


Diagram 3



- Figures like the one in Diagram 1 were used to build a solid as shown in Diagram 2.
- Solids like the one in Diagram 2 were used to form a box as shown in Diagram 3.

What is the volume of the box shown in Diagram 3?

- (A) 28 cubic millimeters
- (B) 56 cubic millimeters
- (C) 168 cubic millimeters
- (D) 336 cubic millimeters

Item Information					
<b>2012 WyCPS Domain:</b>	Measurement and Data				
<b>2012 WyCPS Cluster:</b>	Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.				
<b>2012 WyCPS Standard:</b>	5.MD.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.				
<b>Item Code:</b>	VF865997				
<b>Admin:</b> Spring 2014	<b>Item Type:</b> MC	<b>Correct Answer:</b> D	<b>Item Dok:</b> 2	<b>Total N-count:</b> 693	<b>Pvalue/Mean Score:</b> 0.224

Score Analysis					
MC	A	B	C	D*	Omit
%Choosing	31.457	18.182	27.994	22.367	0

Item Notes

