Wyoming

DEPARTMENT OF EDUCATION

Leading the Drive to Top 5!

PAWS
Mathematics
Grade 7

Released Items
With Data

2014

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 **The staff at a car dealership sold 56 cars in March. If the total sales in April increase by at least 20%, the staff will earn a bonus. What is the minimum number of cars the staff will need to sell in April to earn the bonus?**

A) 68

B) 67

C) 12

D) 11

Item Information	
2012 WyCPS Domain:	Ratios and Proportional Relationships
2012 WyCPS Cluster:	Analyze proportional relationships and use them to solve real-world and mathematical problems.
2012 WyCPS Standard:	7.RP.3 Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
Item Code:	VF492629

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	A	2	660	0.294

Score Analysis					
MC	**A***	**B**	**C**	**D**	**Omit**
%Choosing	29.394	34.545	19.242	16.364	0.455

Item Notes

00 **Kylie earns the same amount of money each week.**

- **She saves $\frac{1}{15}$ of her earnings each week.**
- **She saved $330 over an 11-week period.**

What is the amount of money Kylie earns each week?

A) $30

B) $45

C) $242

D) $450

Item Information	
2012 WyCPS Domain:	The Number System
2012 WyCPS Cluster:	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.
2012 WyCPS Standard:	7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers. (Computations with rational numbers extend the rules for manipulating fractions to complex fractions.)
Item Code:	VF493004

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	D	3	667	0.207

Score Analysis					
MC	**A**	**B**	**C**	**D***	**Omit**
%Choosing	51.124	15.892	11.844	20.69	0.45

Item Notes

00 **What is the value of the expression shown?**

$$\left[(-5)\left(-\frac{3}{10}\right)\right]-[(-4)(0.18)]$$

A) −2.22

B) −0.78

C) 0.78

D) 2.22

Item Information	
2012 WyCPS Domain:	The Number System
2012 WyCPS Cluster:	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.
2012 WyCPS Standard:	7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers. (Computations with rational numbers extend the rules for manipulating fractions to complex fractions.)
Item Code:	VF493009

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	D	2	668	0.223

Score Analysis					
MC	**A**	**B**	**C**	**D***	**Omit**
%Choosing	25.449	30.09	22.006	22.305	0.15

Item Notes

00 **A square picture frame will be centered on a square wall. The width of the frame is $18\frac{3}{4}$ inches and the width of the wall is $57\frac{1}{2}$ inches. Which measure is closest to the minimum distance between an edge of the frame and an edge of the wall?**

A) 39 in.

B) 29 in.

C) 19 in.

D) 10 in.

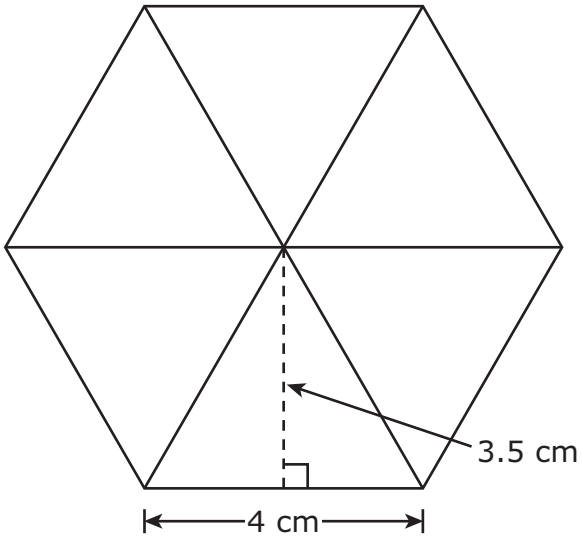
Item Information	
2012 WyCPS Domain:	Expressions and Equations
2012 WyCPS Cluster:	Solve real-life and mathematical problems using numerical and algebraic expressions and equations.
2012 WyCPS Standard:	7.EE.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making $25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
Item Code:	VF492772

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	C	2	668	0.208

Score Analysis					
MC	**A**	**B**	**C***	**D**	**Omit**
%Choosing	52.246	20.359	20.808	6.437	0.15

Item Notes

00 **The height of a triangle in a regular hexagon is approximately 3.5 centimeters as shown.**



Which is closest to the area of this hexagon?

A) 14 cm^2

B) 24 cm^2

C) 42 cm^2

D) 84 cm^2

Item Information	
2012 WyCPS Domain:	Geometry
2012 WyCPS Cluster:	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.
2012 WyCPS Standard:	7.G.6 Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.
Item Code:	VF492987

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	C	2	667	0.391

Score Analysis					
MC	**A**	**B**	**C***	**D**	**Omit**
%Choosing	25.337	15.742	39.13	19.79	0

Item Notes

00 **Abby has a box of 100 identically shaped, colored markers as described in the table shown.**

Colored Markers in Box

Color of Marker	Number of Markers
Red	20
Blue	18
Green	25
Yellow	15
Purple	22

Abby will select one marker from the box without looking. Which best describes the likelihood that Abby will select a green marker?

A) It is likely.

B) It is certain.

C) It is unlikely.

D) It is neither likely nor unlikely.

Item Information	
2012 WyCPS Domain:	Statistics and Probability
2012 WyCPS Cluster:	Investigate chance processes and develop, use, and evaluate probability models.
2012 WyCPS Standard:	7.SP.5 Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
Item Code:	VF493053

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	C	2	670	0.163

Score Analysis					
MC	**A**	**B**	**C***	**D**	**Omit**
%Choosing	62.537	8.955	16.269	10.896	1.343

Item Notes