DEPARTMENT OF EDUCATION

PAWS
Mathematics
Grade 8

Released Items
With Data

Expressions and Equations

Mathematics Released Items with Data
Introduction Page / Data Definitions

This Released Items with Data document provides a subset of items from the 2015 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

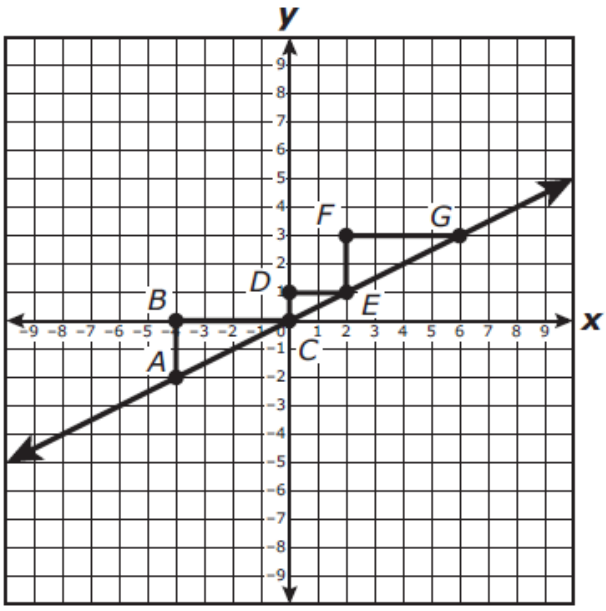
Score Analysis

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 Triangles *ABC*, *CDE*, and *EFG* are shown on the coordinate grid.



Which ratio represents the value of the slope of $\overleftrightarrow{AG}$?

A) $\frac{AB}{EF}$

B) $\frac{CD}{DE}$

C) $\frac{AE}{EG}$

D) $\frac{GF}{FE}$

Item Information	
2012 WyCPS Domain:	Expressions and Equations
2012 WyCPS Cluster:	Understand the connections between proportional relationships, lines, and linear equations.
2012 WyCPS Standard:	8.EE.6 Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation y = mx for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at b.
Item Code:	VF491999

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	B	2	667	0.262

Score Analysis					
MC	**A**	**B***	**C**	**D**	**Omit**
%Choosing	28.936	26.237	34.333	10.195	0.3

00 **An expression is shown.**

$$(8.3 \times 10^9) - (5 \times 10^7)$$

Which value is equivalent to the difference of the given expression?

A) 3.3×10^2

B) 3.3×10^9

C) 8.25×10^2

D) 8.25×10^9

Item Information	
2012 WyCPS Domain:	Expressions and Equations
2012 WyCPS Cluster:	Work with radicals and integer exponents.
2012 WyCPS Standard:	8.EE.4 Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.
Item Code:	VF823449

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2014	MC	D	2	661	0.195

Score Analysis					
MC	**A**	**B**	**C**	**D***	**Omit**
%Choosing	45.991	13.011	21.483	19.516	0

00 **The sizes of two cells are given.**

- **Cell A is 3×10^{-5} meter.**
- **Cell B is 1×10^{-6} meter.**

Which statement is true about the sizes of these cells?

A) Cell A is approximately 3 times smaller than Cell B.

B) Cell A is approximately 30 times smaller than Cell B.

C) Cell B is approximately 3 times smaller than Cell A.

D) Cell B is approximately 30 times smaller than Cell A.

Item Information	
2012 WyCPS Domain:	Expressions and Equations
2012 WyCPS Cluster:	Work with radicals and integer exponents.
2012 WyCPS Standard:	8.EE.3 Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. For example, estimate the population of the United States as 3 × 10^8 and the population of the world as 7 × 10^9, and determine that the world population is more than 20 times larger.
Item Code:	VF802939

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2014	MC	D	2	637	0.226

Score Analysis					
MC	**A**	**B**	**C**	**D***	**Omit**
%Choosing	17.896	11.617	47.881	22.606	0