



DEPARTMENT OF EDUCATION

PAWS
Mathematics
Grade 8
Released Items
With Data

Geometry

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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 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

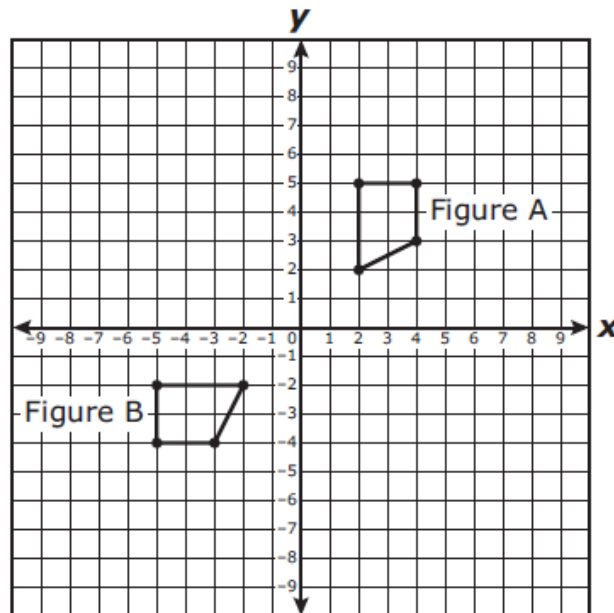
Score Analysis

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 Two figures are shown on the coordinate grid.



Which sequence of transformations would map Figure A to Figure B?

- A) Rotate Figure A 90° clockwise about the origin and reflect the resulting figure across the x -axis.
- B) Rotate Figure A 90° clockwise about the origin and translate the resulting figure 7 units to the left.
- C) Rotate Figure A 90° counterclockwise about the origin and translate the resulting figure 6 units down.
- D) Rotate Figure A 90° counterclockwise about the origin and reflect the resulting figure across the x -axis.

Item Information	
2012 WyCPS Domain:	Geometry
2012 WyCPS Cluster:	Understand congruence and similarity using physical models, transparencies, or geometry software.
2012 WyCPS Standard:	8.G.2 Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
Item Code:	VF493125

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	D	2	665	0.436

Score Analysis					
MC	A	B	C	D*	Omit
%Choosing	25.714	14.887	15.188	43.609	0.602

00 An artist created a sculpture composed of 15 cones made out of concrete. Each cone was 7 inches tall and had a radius of 3 inches. Which value is closest to the total amount of concrete that the artist used to make the sculpture?

- A) 165 cu in.
- B) 247 cu in.
- C) 660 cu in.
- D) 990 cu in.

Item Information	
2012 WyCPS Domain:	Geometry
2012 WyCPS Cluster:	Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.
2012 WyCPS Standard:	8.G.9 Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.
Item Code:	VF494978

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	D	2	672	0.131

Score Analysis					
MC	A	B	C	D*	Omit
%Choosing	17.56	41.071	28.125	13.095	0.149

00 The distance between the center of a sphere to a point on the sphere is 6 inches. Which is closest to the volume, in cubic inches, of this sphere?

- A) 904 cu in.
- B) 678 cu in.
- C) 509 cu in.
- D) 151 cu in.

Item Information	
2012 WyCPS Domain:	Geometry
2012 WyCPS Cluster:	Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.
2012 WyCPS Standard:	8.G.9 Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.
Item Code:	VF811990

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2014	MC	A	2	664	0.173

Score Analysis					
MC	A*	B	C	D	Omit
%Choosing	17.319	29.367	22.892	30.271	0.151

00 A figure in Quadrant 1, with no vertices located on the origin, is rotated 90° counterclockwise about the origin. Which statement describes the effect on the coordinates of the vertices of this figure in relationship to this rotation?

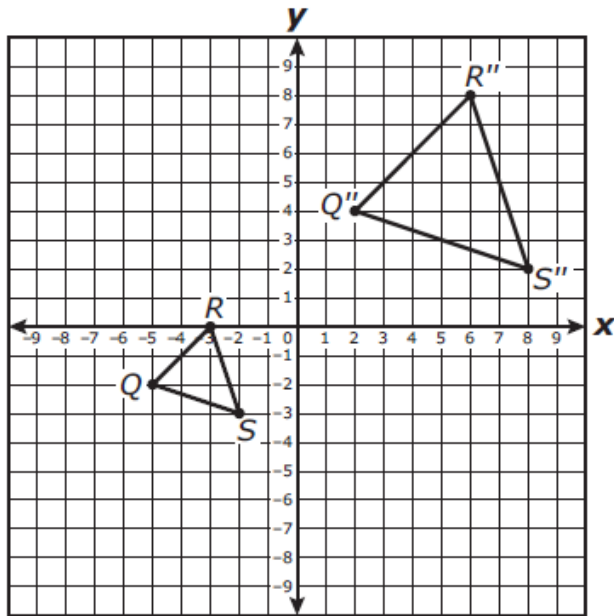
- A) (x, y) will become $(-y, x)$
- B) (x, y) will become $(x, -y)$
- C) (x, y) will become $(y, -x)$
- D) (x, y) will become $(-x, -y)$

Item Information	
2012 WyCPS Domain:	Geometry
2012 WyCPS Cluster:	Understand congruence and similarity using physical models, transparencies, or geometry software.
2012 WyCPS Standard:	8.G.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
Item Code:	VF493605

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	A	2	668	0.163

Score Analysis					
MC	A*	B	C	D	Omit
%Choosing	16.317	23.802	30.988	28.293	0.599

- 00 Triangle QRS and triangle $Q''R''S''$ are shown on the coordinate grid.



Which sequence of transformations occurred to obtain triangle $Q''R''S''$ from triangle QRS ?

- A) Translated $\triangle QRS$ 4 units up and 6 units to the right and then dilated $\triangle Q'R'S'$ about the origin by a scale factor of $\frac{1}{2}$.
- B) Translated $\triangle QRS$ 6 units up and 4 units to the right and then dilated $\triangle Q'R'S'$ about the origin by a scale factor of $\frac{1}{2}$.
- C) Translated $\triangle QRS$ 4 units up and 6 units to the right and then dilated $\triangle Q'R'S'$ about the origin by a scale factor of 2.
- D) Translated $\triangle QRS$ 6 units up and 4 units to the right and then dilated $\triangle Q'R'S'$ about the origin by a scale factor of 2.

Item Information	
2012 WyCPS Domain:	Geometry
2012 WyCPS Cluster:	Understand congruence and similarity using physical models, transparencies, or geometry software.
2012 WyCPS Standard:	8.G.4 Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.
Item Code:	VF494099

Admin:	Item Type:	Correct Answer:	Item Dok:	Total N-count:	Pvalue/Mean Score:
Spring 2013	MC	C	2	677	0.355

Score Analysis					
MC	A	B	C*	D	Omit
%Choosing	13.589	18.316	35.451	32.201	0.443