

Mrs. Stiteler

Geometry

Blizzard Bag #2

Instructions: Please complete the 5 attached practice AIR test questions. You may use a calculator. Spend some time with each question; don't give up if you don't immediately know how to solve it.

Question 47

Triangle MNO is transformed to produce triangle PQR.

Select all of the transformations that would guarantee triangles MNO and PQR are congruent.

- a dilation, then a translation
- a reflection, then a dilation
- a reflection, then a rotation
- a rotation, then a translation
- a translation, then a reflection

Points Possible: 1

Content Cluster: Understand congruence in terms of rigid motions.

Content Standard: Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent. (G.CO.6)

Question 45

The equation of a line is shown.

$$6x - 3y = 5$$

A dilation centered at the origin with a scale factor of 6 is applied to this line.

- A. What is the slope of the line after the dilation?
- B. What is the value of the y-intercept of the line after the dilation?

A.

B.

← → ↶ ↷ ✖

1	2	3
4	5	6
7	8	9
	0	
.	-	$\frac{\square}{\square}$

Points Possible: 2

Content Cluster: Understand similarity in terms of similarity transformations.

Content Standard: Verify experimentally the properties of dilations given by a center and a scale factor: (G.SRT.1)
a. A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.

Question 34

A cone and a sphere have the same volume. The height of the cone is 96 units.

What could be the values for the radius of the cone and the sphere? Round your answers to the nearest hundredth as needed.

Radius of Cone: units

Radius of Sphere: units



1	2	3
4	5	6
7	8	9
	0	
-	-	π

Points Possible: 1

Content Cluster: Explain volume formulas and use them to solve problems.

Content Standard: Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems. (G.GMD.3)

Question 31

Which term is defined as two intersecting lines that form four right angles in a plane?

- Ⓐ skew lines
- Ⓑ straight lines
- Ⓒ parallel lines
- Ⓓ perpendicular lines

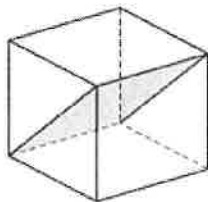
Points Possible: 1

Content Cluster: Experiment with transformations in the plane.

Content Standard: Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc. (G.CO.1)

Question 16

A cube is sliced as shown.

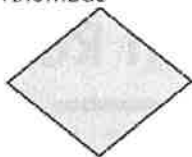


What is the shape of the cross section?

A Rectangle



B Rhombus



C Square



D Trapezoid

