End of Year Review | Day 2 | Homework

A. CONGRUENCE AND SIMILARITY

1. (DOK 1) What transformations must occur to preserve congruence?
2. (DOK 1) What transformations must occur to preserve similarity?
3. ****(DOK 2) Triangle *RST* has vertices *R*(1, 1), *S*(1, 4), and *T*(3, 1). Graph the figure and its rotated image after a clockwise rotation of 180° about the origin. Then give the coordinates of the vertices for triangle *R*ʹ*SʹTʹ*.
4. (DOK 2) Triangle *BDF* has vertices *B*(4, 3), *D*(6, 3), and *F*(6, 1). What are the coordinates of the image of point *F* after a translation 2 units to the left and 4 units down?
5. (DOK 2) Quadrilateral *MNOP* has vertices *M*(–2, 4), *N*(–2, 1), *O*(3, 1), and *P*(3, 4). What are the coordinates of the image of point *P* after a reflection across the *x*-axis?
6. (DOK 2) A quadrilateral has vertices *J*(1, 1), *K*(4, 3), *L*(4, 6) and *M*(1, 6). What are the coordinates of the image after a 90$°$ counterclockwise rotation around the origin? Graph and label the coordinates of the image created by the rotation.
7. (DOK 3) Classify the following figures as either **similar** or **congruent**. Justify your reasoning by explaining why you know you are correct.

B. VOLUME

1. (DOK 1) Write the volume formulas for the following shapes:
	1. Cylinder:
	2. Cone:
	3. Sphere:
2. (DOK 2) Find the volume of the cylinder. Round to the nearest tenth.



1. (DOK 2) Find the volume of the cone. Round to the nearest tenth.



1. (DOK 2) Find the volume of the hemisphere. Round to the nearest tenth.



1. (DOK 3) Two fuel tanks with the dimensions shown have the same volume. What is the value of *h*?



1. (DOK 3) Find the area of the base if a cone has a volume of 36 cubic inches and a height of 9 inches.