Choose Your Own Assessment

Rigid Transformations

Your Task: You must prove/show your understanding and knowledge of Rigid Transformations and Dilations in any format you choose. This will included translations, reflections, and rotations in addition to dilations. You will also need to describe the effect of dilations, translations, rotations and reflections on figures using coordinates and whether or not the figures are similar or congruent. You will be graded based on the rubric below. (Some ideas: poster, story, instructional book, video/trailer [*if you use a video you may work in groups of no more than 3*], comic, Instagram, Facebook page, rap/song, article, game, cartoon, collage, newspaper, slide show, flashcards, blog, create a test [*you must do the test and submit answer key*])

Name:		**Per:**		
Goal:	10	8	7	5
Translations – Student understands a translation as the shifting of an object a fixed distance, so that any point lying on the shape moves the same distance in the same direction.	Shows the effect of a translation using coordinates. Work shows full grasp of the mathematical idea & communicates thinking clearly using a combination of symbolic & visual means.	Substantially accomplishes the purpose of the task. Student work shows essential grasp of the mathematical idea. Work in large part communicates the thinking.	Partially accomplishes the task with partial but limited grasp of the central idea. Recorded work may be incomplete misdirected and/or not clearly presented.	Makes little or no progress towards accomplishing the task. Shows little or no grasp of the central idea. Recorded work is unorganized, hard to follow and/or barely (if at all) comprehensible.
Reflections – Student understands a reflection as flipping an object over a line of reflection both vertically and horizontally.	Shows the effect of a reflection using coordinates. Work shows full grasp of the mathematical idea & communicates thinking clearly using a combination of symbolic & visual means.	Substantially accomplishes the purpose of the task. Student work shows essential grasp of the mathematical idea. Work in large part communicates the thinking.	Partially accomplishes the task with partial but limited grasp of the central idea. Recorded work may be incomplete misdirected and/or not clearly presented.	Makes little or no progress towards accomplishing the task. Shows little or no grasp of the central idea. Recorded work is unorganized, hard to follow and/or barely (if at all) comprehensible.
Rotations - Student understands a rotation as the spinning of a figure around a fixed point known as the center of rotation.	Shows the effect of a rotation using coordinates. Work shows full grasp of the mathematical idea & communicates thinking clearly using a combination of symbolic & visual means.	Substantially accomplishes the purpose of the task. Student work shows essential grasp of the mathematical idea. Work in large part communicates the thinking.	Partially accomplishes the task with partial but limited grasp of the central idea. Recorded work may be incomplete misdirected and/or not clearly presented.	Makes little or no progress towards accomplishing the task. Shows little or no grasp of the central idea. Recorded work is unorganized, hard to follow and/or barely (if at all) comprehensible.
Dilations – Student shows that dilating a figure creates a similar figure with corresponding side lengths as the new figure can be obtained from the first using a scale factor.	Shows the effect of a dilation using a scale factor & the effect the scale factor has on the coordinates. Work shows full grasp of the mathematical idea & communicates thinking clearly using a combination of symbolic & visual means.	Substantially accomplishes the purpose of the task. Student work shows essential grasp of the mathematical idea. Work in large part communicates the thinking.	Partially accomplishes the task with partial but limited grasp of the central idea. Recorded work may be incomplete misdirected and/or not clearly presented.	Makes little or no progress towards accomplishing the task. Shows little or no grasp of the central idea. Recorded work is unorganized, hard to follow and/or barely (if at all) comprehensible.
Congruency – Student shows that a figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections & translations.	Fully accomplishes the task. Work shows full grasp of the mathematical idea & communicates thinking clearly using a combination of symbolic & visual means.	Substantially accomplishes the purpose of the task. Student work shows essential grasp of the mathematical idea. Work in large part communicates the thinking.	Partially accomplishes the task with partial but limited grasp of the central idea. Recorded work may be incomplete misdirected and/or not clearly presented.	Makes little or no progress towards accomplishing the task. Shows little or no grasp of the central idea. Recorded work is unorganized, hard to follow and/or barely (if at all) comprehensible.

Total score _____ × 2 = _____/___100___

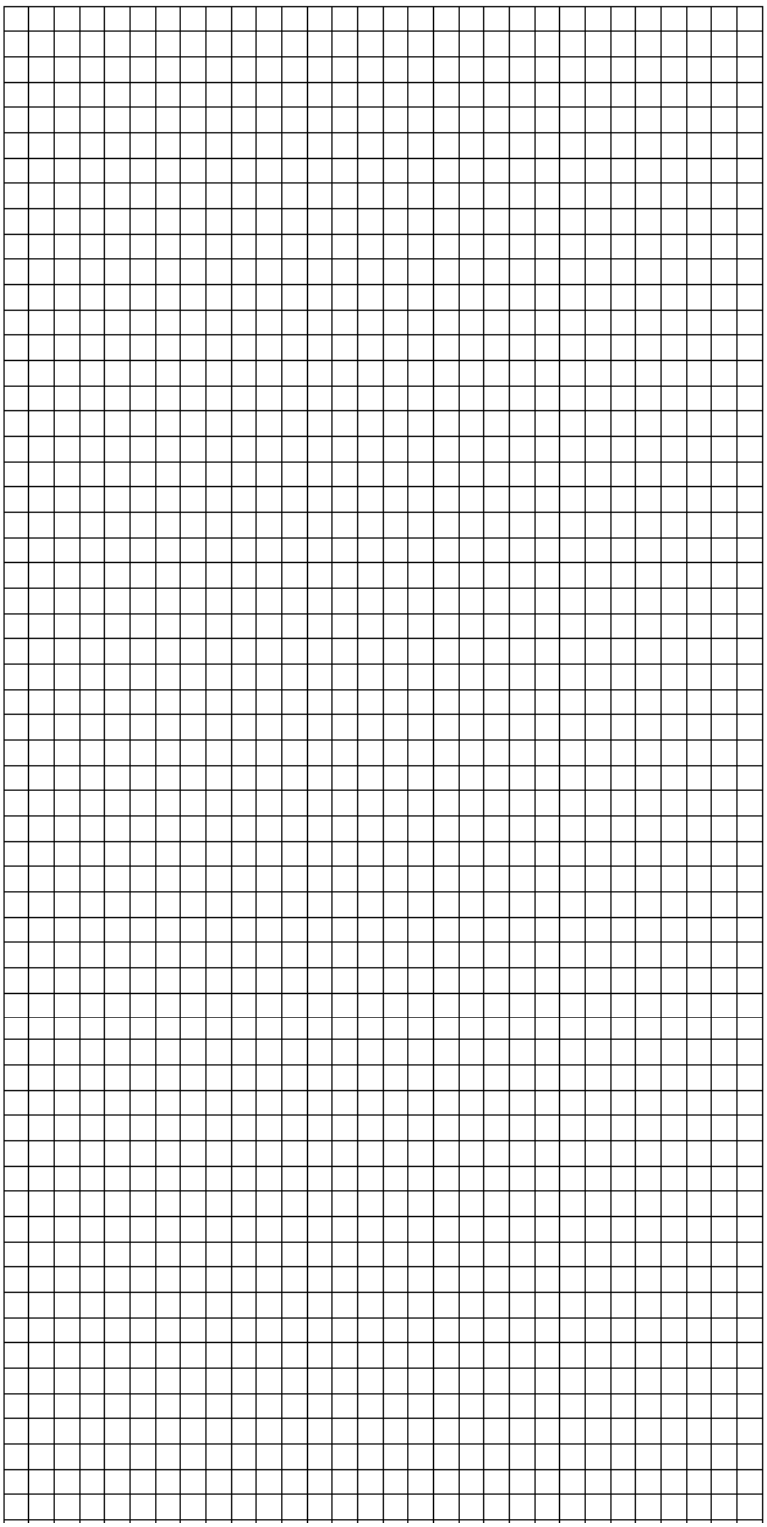
Project Outline/Rough Draft

Name: _____ **Date:** _____ **Per:** _____

For my project I plan to: _____

_____

_____

Goal:	Options:	Plan
Translations – Student understands a translation as the shifting of an object a fixed distance, so that any point lying on the shape moves the same distance in the same direction.	**Original Shapes:** a) Translate triangle XYZ 7 units up& 3 units right. X(6,1), Y:(1, -2), Z:(9,-2) b) Translate triangle ABC 5 units left, 3 units down. A:(2,5), B:(2,1), C:(8,1) c) Translate triangle UVW 2 up, 6 units left. U:(1, 1), V:(2,0), W:(3,1)	
Reflections – Student understands a reflection as flipping an object over a line of reflection both vertically and horizontally.	Reflect any of the original shapes above across: a) y-axis b) x-axis c) x = 3 d) y = 4 e) x = -1 f) y = -2 (Select 2 – one x and one y)	
Rotations - Student understands a rotation as the spinning of a figure around a fixed point known as the center of rotation.	Rotate any of the original shapes: a) CCW about the origin 90^o b) CW about the origin 180^o c) CCW 180^o about point A d) CW 90^o about point X e) CCW 180^o about point W	
Dilations – Student shows that dilating a figure creates a similar figure with corresponding side lengths as the new figure can be obtained from the first using a scale factor.	Dilate any of the original shapes by: a) k = 3 b) $k = \frac{1}{2}$ c) k = 2	
Congruency – Student shows that a figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections & translations.	Use any of the translations, reflections & rotations above in a sequence.	