

Geometry B Live Lesson Class

U4L9 – Transformations Test Review



Agenda



1. Review topics and problems from Unit 4.

2. Use the 2-column note system to take better notes in math class. Bring your math notebook and pen or pencil to each math LiveLesson class.

2-Column Notes Template



1. Announcements/To Do's
2. School-Wide Learner Outcomes
3. LL Objectives
4. Vocabulary words
5. Problems
6. Summary (End of class)

1. Write down important details.
2. What are you going to work on this week?
- 3.
4. Definitions (fill in as we go)
5. Steps to solving problems
6. 1 or 2 sentences about the LL class.

Reminders and To – Do's



Information

1. Complete 1 math lesson per day.
2. Check your WebMail every day
3. Be prepared to spend 4 - 6 hours per day on schoolwork.
4. Remind your Learning Coach to take daily attendance

What to do

1. Go to your Planner in Connexus to find the math lesson for the day
2. Go to Connexus to find WebMail
3. Complete lessons for the day from your Planner. Do not get behind on lessons.
4. Have your Learning Coach log into Connexus daily.

Reminders and To – Do's



Information

5. Go to the Message Board first for information about our math class.

6. Contact Mr. Elizondo for math questions.

Remember: You need at least 2 phone calls with Mr. Elizondo per semester.

What to do

6. Call (559) 549 - 3244 and leave a voicemail if call is not answered.

Make an appointment at:
<https://elizondo.youcanbook.me>

Send a WebMail

U4L9 – Vocabulary Words



- angle of rotation
- center of a regular polygon
- center of dilation
- center of rotation
- composition of transformations
- dilation
- enlargement
- glide reflection
- image
- isometry
- line of reflection
- line of symmetry
- line symmetry
- point of symmetry
- preimage
- reduction
- reflection
- reflectional symmetry
- rotation
- rotational symmetry
- scale factor of dilation
- symmetry
- transformation
- translation

U4L9 – Things to Know for Unit 4 Test



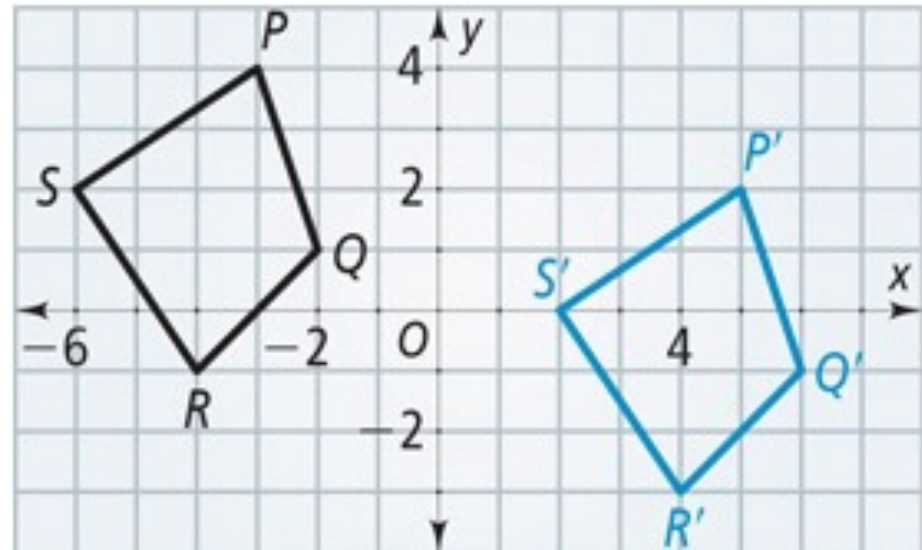
- Identifying transformations
- Definition and examples of isometries
- Translation rules
- Reflections across x-axis, y-axis
- Rotations: finding angle of rotation; finding image after rotation
- Symmetry: reflectional symmetry, rotational symmetry, point symmetry
- Dilations: enlargement vs. reduction
- Glide reflections

U4L9 – Translations



What rule describes the translation shown in the figure?

$$(x + 8, y - 2)$$



U4L9 – Translations



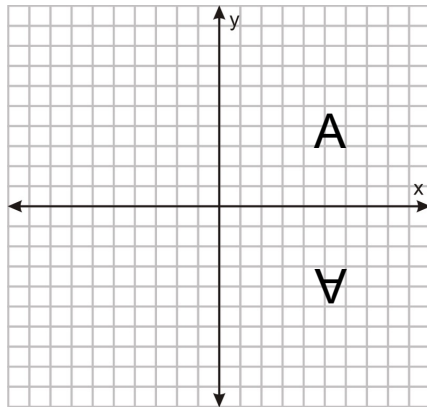
What rule describes the translation 3 units left and 4 units down?

$$(x - 3, y - 4)$$

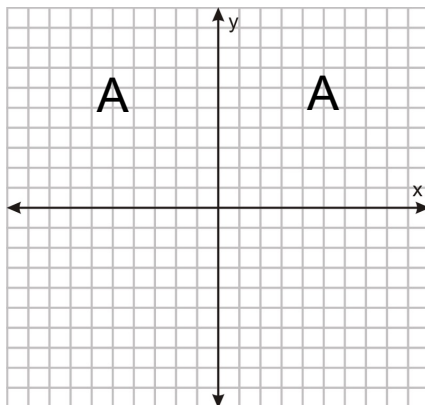
U4L9 – Reflections



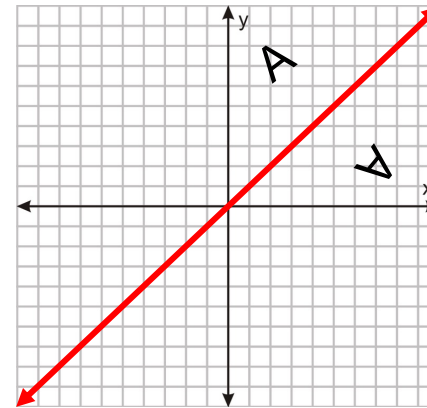
■ Across x-axis



■ Across y-axis



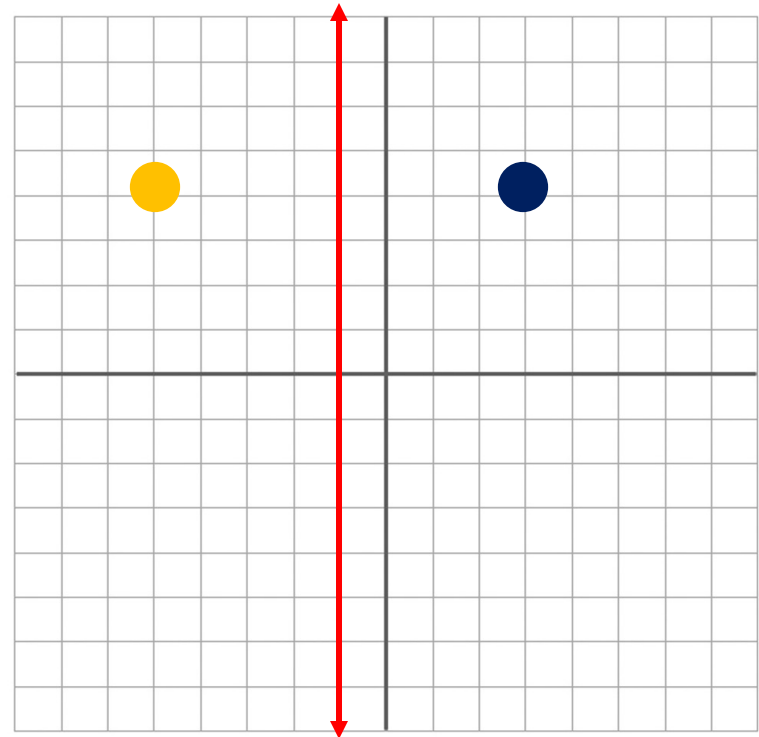
■ Across $y=x$ line



U4L9 – Reflections



Find the reflection image
of $(3, 4)$ across the line
 $x = -1$.

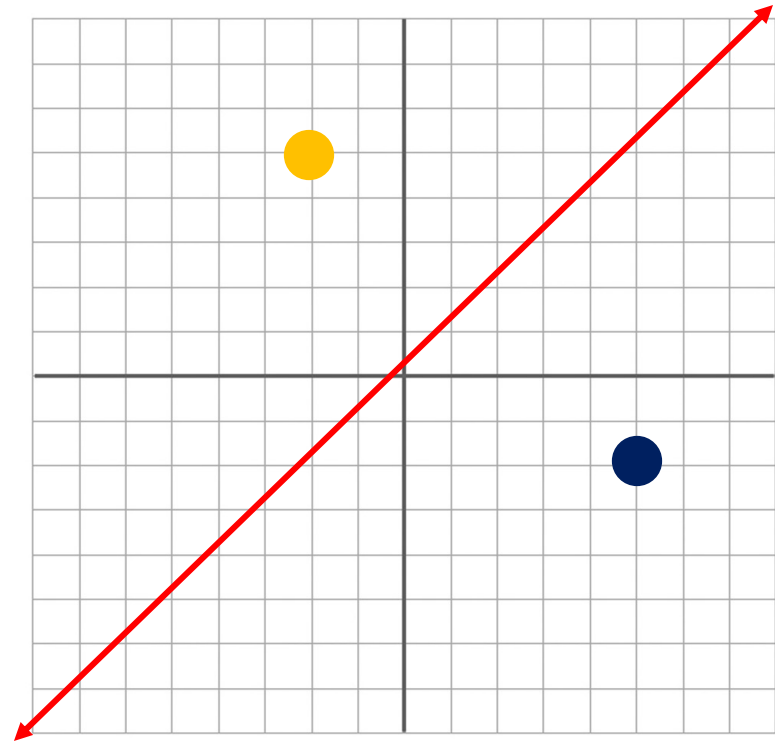


U4L9 – Reflections



Find the reflection image
of $(5, -2)$ across the line
 $y = x$.

$(-2, 5)$



U4L9 – Rotations



Point O is the center of regular hexagon HEXAGN. Find the image of the given point or segment for the given rotation.

- 60° rotation of E about O

H



- What is the image of \overline{NG} after a rotation of 240° ?

\overline{HE}

U4L9 – Symmetry



What type(s) of symmetry does the figure have?

- a) Line symmetry only
- b) Rotational symmetry only
- c) Line and rotational symmetry
- d) No symmetry



c) Line and rotational symmetry

U4L9 – Dilations



Find the coordinates of the vertices of the image of PQR for a dilation with center $(0, 0)$ and scale factor 3. Is this an enlargement or a reduction?

$$P(2, -1)$$

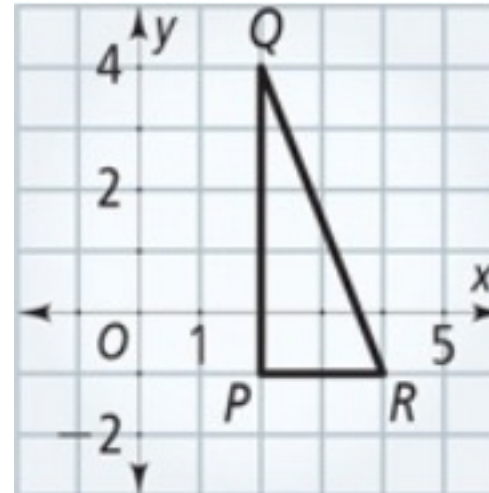
$$Q(2, 4)$$

$$R(4, -1)$$

$$P'(6, -3)$$

$$Q'(6, 12)$$

$$R'(12, -3)$$



U4L9 – Glide Reflections

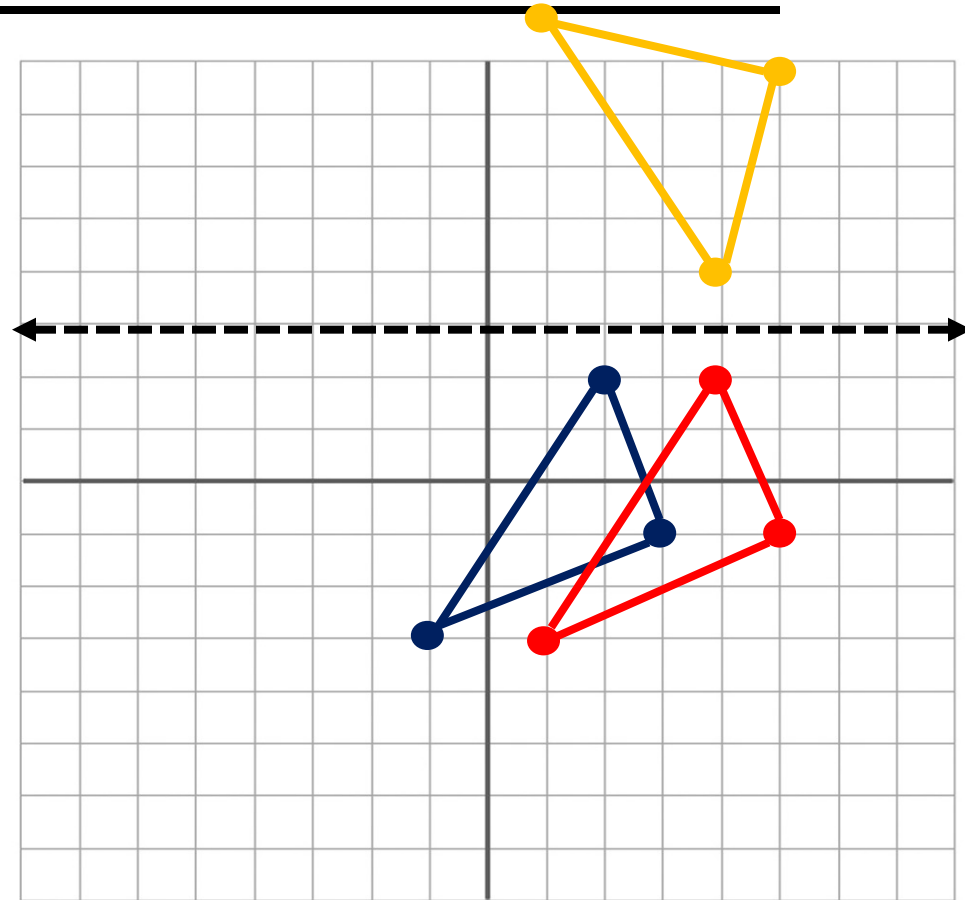


Graph triangle PNB and its glide reflection image for the given translation and reflection line.

$$(x, y) \rightarrow (x + 2, y); y = 3$$

$P (-1, -3)$	$P' (1, -3)$
$Q (2, 2)$	$Q' (4, 2)$
$R (3, -1)$	$R' (5, -1)$

$$P'' (1, 8)$$
$$Q'' (4, 4)$$
$$R'' (5, 8)$$



Questions?



- Check the Message Board first
- Send a WebMail
- You can also make an appointment at <https://elizondo.youcanbook.me>
- You can also call me at (559) 549-3244. If I'm not available to answer your call, please leave a voicemail with your full name and phone number.