

April 15-21, 2020

DONELSON MIDDLE SCHOOL 8TH GRADE CONNECTION

Contact Us!

Jonathan Barton,
Social Studies & ELA,
jonathan.barton@mnps.org

Leia Brown, Math,
leia.brown@mnps.org

Christy Keech, Science,
christy.keech@mnps.org

Satricia Moore, Math & Science,
satricia.moore@mnps.org

Jeremy Pritchett, Social Studies,
jeremy.pritchett@mnps.org

Rachael Putney, ELA,
rachael.putney@mnps.org

Sarah Sepanski, Math,
Sarah.sepanski@mnps.org

Deerrell Taylor, ELA,
deerrell.taylor@mnps.org

Arabella Wardlaw, Ex. Ed.,
arabella.wardlaw@mnps.org

Dr. Lamarcus Calvin, Counselor,
lamarcus.calvin@mnps.org

Matthew Patterson, 7/8 Principal,
matthew.patterson@mnps.org

Jennifer Rheinecker, Principal,
Jennifer.rheinecker@mnps.org,
615-884-4082

Hello 8th grade students and families! We miss you and hope you are staying safe and healthy during this time.

The activities listed here are optional, but are meant to support your child to maintain his/her skills until we return. Work will not be graded, and will not affect student promotion or attendance.

Suggested Grade Level Activities:

8th Grade Digital Toolbox – <https://bit.ly/DMS8thgrade>
Visit this site for resources, activities, and ideas from your teachers. Each teacher has a tab with resources available for their classes. Feel free to browse your teachers' tabs and check back regularly for updates.

Check out the **MNPS printable learning packet** for this week here: <https://www.mnps.org/printables>

English Language Arts:

Read 30 minutes per day! Additionally - iReady is a great resource for students to work on their reading fluency and comprehension.

Math:

Through the Digital Toolbox and attached resources, we will continue our review of transformations. Transformations include translations, rotations, reflections, and dilations. Next week, we will jump into Pythagorean Theorem!

8th Grade Science:

Topic: The Earth System. Read about the four main components of the earth system (<https://bit.ly/4EarthSystem>), and then watch these two videos (<https://bit.ly/SciVideo1> and <https://bit.ly/SciVideo2>).

Physical Science:

Topic: Nonmetals. Download and complete this (https://bit.ly/PS_Nonmetals) to learn more about nonmetals and their properties.

High School Musical Update

If you are in the cast of the DMS High School Musical, please email Ms. Payne (chelsea.payne@mnps.org).

There is a HSM cast Zoom meeting April 15th at 12:00pm.

Social Studies:

Refine your knowledge of American History on ushistory.org (Chapters 19-34) or mrbarton.org. This week, focus on topic 21 on "The Expanding Republic & War of 1812" (<https://bit.ly/USHistory21>). After reading each chapter or number, develop a list of 5 things you learned and 2 questions that you have.

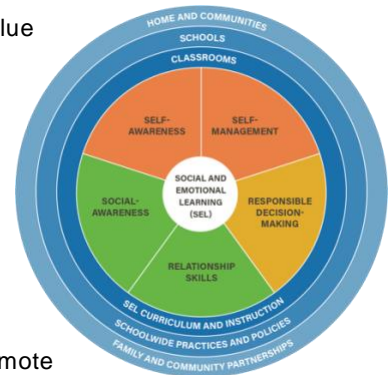
Related Arts:

<p>Band If you find videos you think I may enjoy, send them to me! Laura.shepherd@mnp.org</p>	<p>This week, try and find recordings on YouTube. Please make sure it is ok with your parents before you do this! I am sending three this week, flute (https://bit.ly/Flute3), clarinet (https://bit.ly/Clarinet3) and sax (https://bit.ly/Saxes). Next week, I'll send Brass and Percussion! These videos will show you the versatility of your chosen instrument. But remember, these musicians have played and practiced a ton, it does not happen overnight.</p>	<p>Music</p>	<p>Take advantage of all the musical offerings that musicians are providing, free of charge. Facebook, Instagram, Twitter are all full of concert announcements! Take the time you have now to venture out and see if you can find a new favorite artist!</p>
<p>Art</p>	<p>Check out this link (bit.ly/DMSDraw) to help you decide what to draw each day. Drawing can help sharpen your artistic skills and promote creative skills to be used in all aspects of your life!</p>	<p>P.E.</p>	<p>Try out an online workout: bit.ly/PE_Yoga Additionally, daily 30-45 minute walks can help alleviate stress and anxiety.</p>
<p>Guitar</p>	<p>Find virtual daily guitar lessons here: bit.ly/DMSGuitar</p>	<p>Spanish</p>	<p>Learn a new language on the Duolingo App (duolingo.com)</p>

Social Emotional Learning/Self-Care:

Donelson Middle School wants to centralize Social Emotional Learning for a healthy environment at home, school, and community for families and students. When we are intentional about being in community, especially during this time of uncertainty, we will all have a unifying sense of peace. We all will play an active and important part of the larger Donelson community. We want to provide you some tips for building and strengthening collective efficacy as you may face personal and intrapersonal conflict. Remember to use restorative practices as your foundation. The underlying principles of a restorative community include:

- There is a deep underlying belief that all community members add value and enrich the community
- There is systematic effort to hear and respect all voices
- There is authentic listening and sharing in the community
- Members speak and listen from the heart.
- There is a conscious and spoken value placed on positive relationships.
- Decisions are made inclusively.
- There is an expectation that decisions and actions will be made "with each other, not "for" or "to" by one segment of the community to another.
- There is a non-punitive response to wrongdoing with the intent to promote healing and learning to avoid future harm.



Social and emotional learning (SEL) is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.

SEL Resource of the Week: Mindfulness – A Self-Compassion Break (<https://bit.ly/Momentforme>)

Stay connected with us:



www.mnps.org/covid19



donelsonmiddle.weebly.com



@Donelson Middle School



@Donelson MNPS



@DonelsonMiddle Nashville

Name: _____

Date: _____

M8-U3: Notes #2 – Reflections

Class: _____

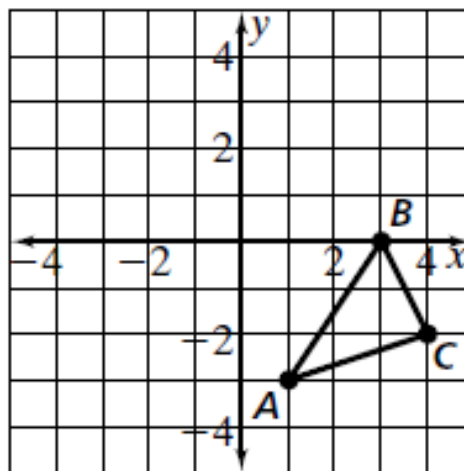
A **reflection** is a transformation which _____ the figure over a _____.

This line is called the _____.

Example 1:

$\triangle ABC$ is being reflected over the x -axis.

Draw and label the image $\triangle A'B'C'$.



We can use an arrow to describe this reflection.

$$\triangle ABC \rightarrow \triangle A'B'C'$$

What are the coordinates of:

A _____ \rightarrow A' _____

B _____ \rightarrow B' _____

C _____ \rightarrow C' _____

Write a general rule for an x -axis reflection:

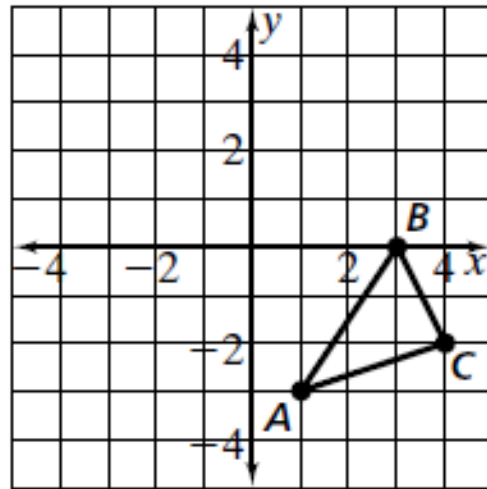
$$(x, y) \rightarrow (\quad , \quad).$$

Tell me more about this figure, is it congruent or similar? Explain how you know.

Example 2:

$\triangle ABC$ is reflected over the y -axis.

Draw the image $\triangle A'B'C'$.



What are the coordinates of:

A _____ \rightarrow A' _____

B _____ \rightarrow B' _____

C _____ \rightarrow C' _____

Write a general rule for a y -axis reflection:

$$(x, y) \rightarrow (\text{_____}, \text{_____}).$$

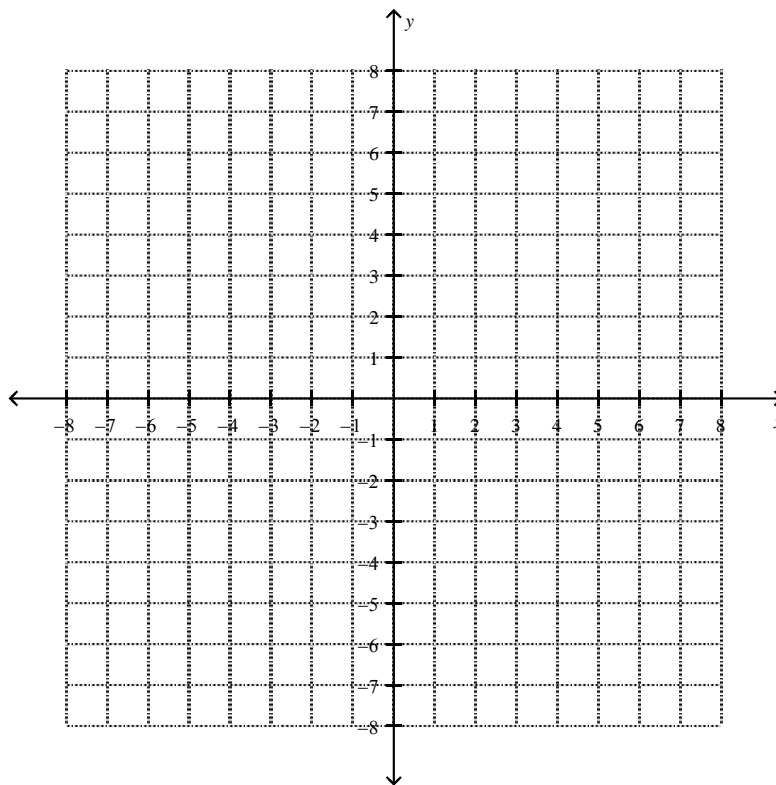
Example 3:

- a) Draw $\triangle JKL$ which has coordinates $J(0,2)$, $K(3,4)$, and $L(5,1)$.
- b) Draw the image $\triangle J'K'L'$ after a reflection of $\triangle JKL$ over the x -axis.
- c) List the coordinates of $J'K'L'$.

J (0, 2) \rightarrow J' _____

K (3, 4) \rightarrow K' _____

L (5, 1) \rightarrow L' _____



- d) Draw the image $\triangle J''K''L''$ after a reflection of $\triangle J'K'L'$ over the y -axis.

- e) List the coordinates of $J''K''L''$.

J'' _____ \rightarrow J'' _____

K'' _____ \rightarrow K'' _____

L'' _____ \rightarrow L'' _____

- f) Describe a different combination of two reflections that would move $\triangle JKL$ to $\triangle J''K''L''$.

- g) Is this new image congruent or similar to the original figure?

Example 4:

a) Draw $\triangle ABC$ which has coordinates $A(0,1)$, $B(3,4)$, and $C(5,1)$.

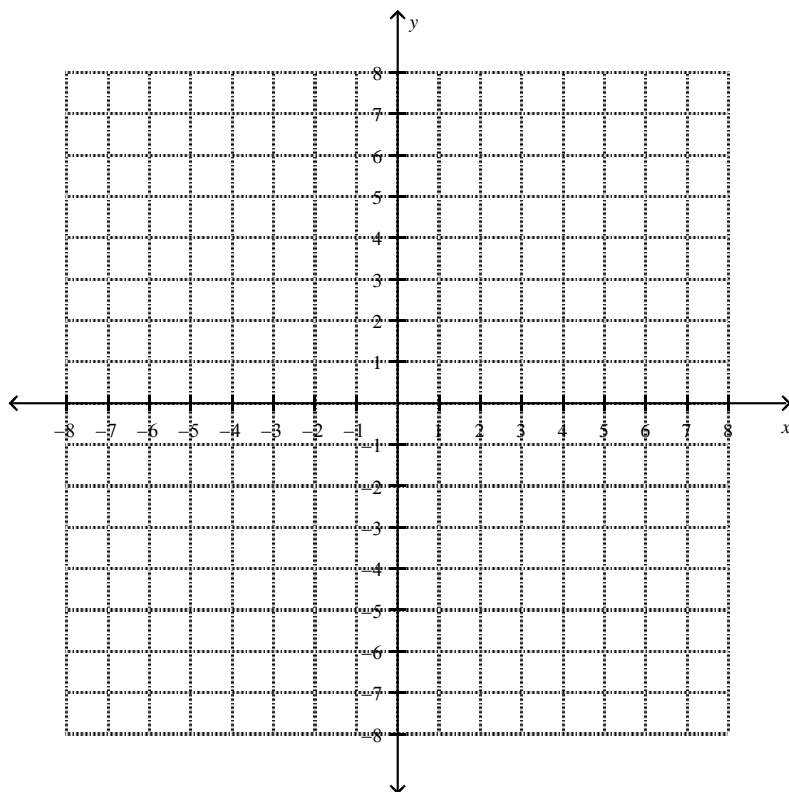
b) Draw the image $\triangle A'B'C'$ after a reflection of $\triangle ABC$ over $x = -1$.

c) List the coordinates of $A'B'C'$.

A (0, 1) \rightarrow A' _____

B (3, 4) \rightarrow B' _____

C (5, 1) \rightarrow C' _____

**Example 5:**

a) Draw $\triangle ABC$ which has coordinates $A(0,1)$, $B(3,4)$, and $C(5,1)$.

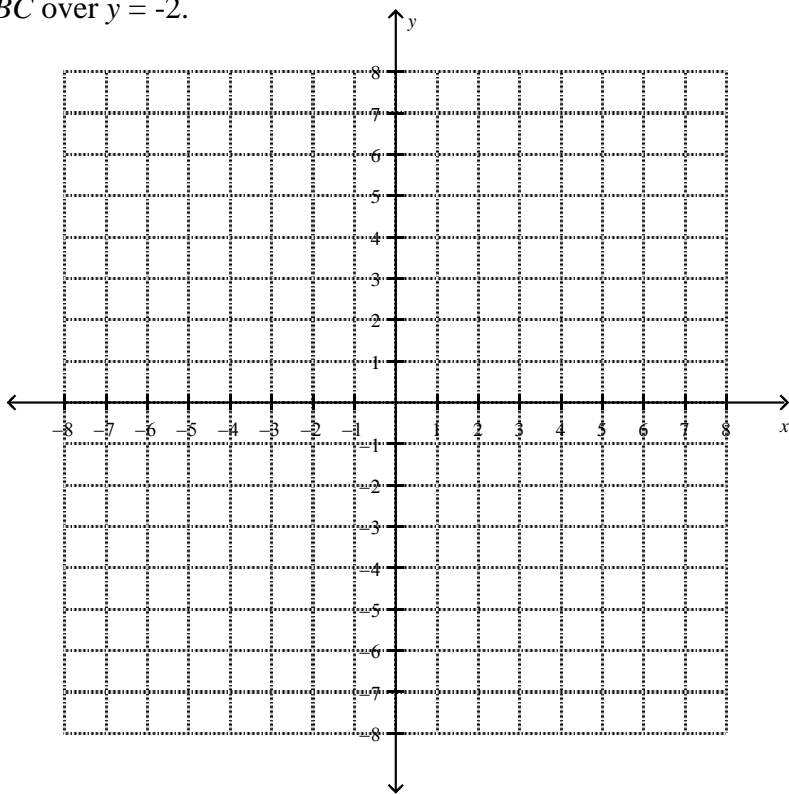
b) Draw the image $\triangle A'B'C'$ after a reflection of $\triangle ABC$ over $y = -2$.

c) List the coordinates of $A'B'C'$.

A (0, 1) \rightarrow A' _____

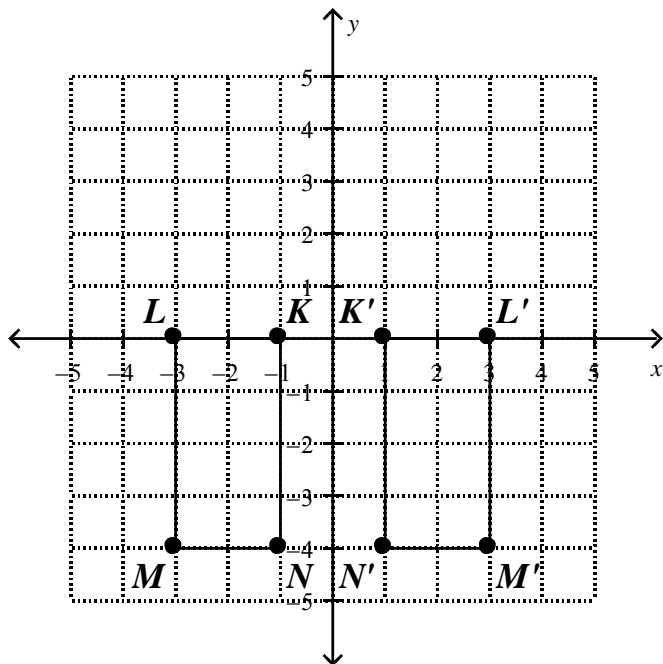
B (3, 4) \rightarrow B' _____

C (5, 1) \rightarrow C' _____



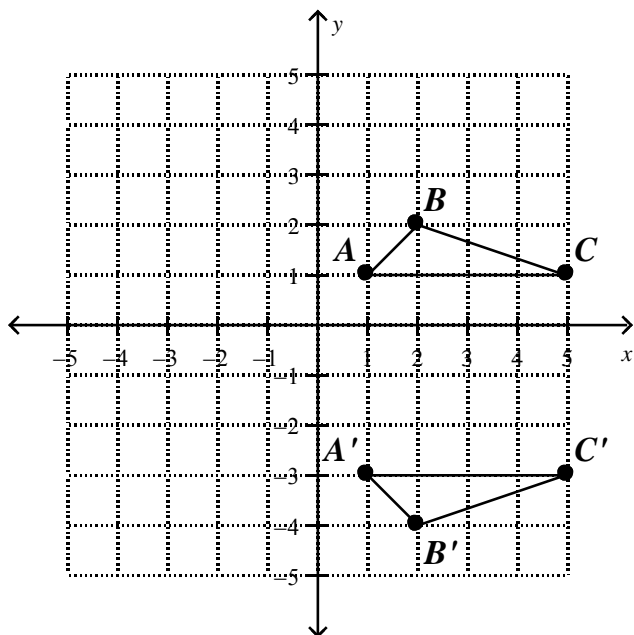
Example 6:

Draw the line of reflection which caused rectangle $KLMN$ to reflect onto rectangle $K'L'M'N'$. What is the equation of the line of reflection?



Example 7:

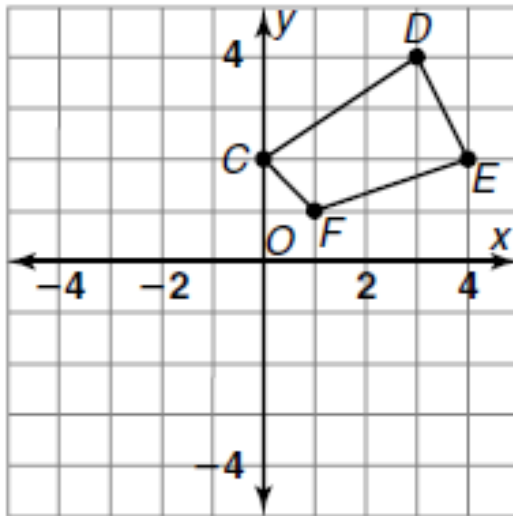
Draw the line of reflection which caused triangle ABC to reflect onto triangle $A'B'C'$. What is the equation of the line of reflection?



Example 8:

Quadrilateral $CDEF$ is plotted on the grid below.

On the graph, draw the reflection of polygon $CDEF$ over the x -axis. Label the image $C'D'E'F'$.

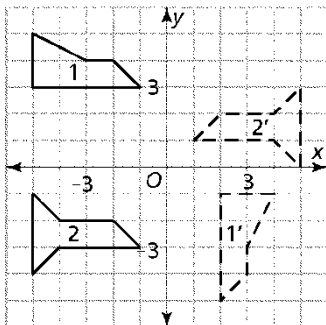


Now create polygon $C''D''E''F''$ by translating polygon $C'D'E'F'$ three units to the left and up two units. What will be the coordinates of point C'' ?

Answer _____

Example 9:

Describe how you could move shape 2 to exactly match shape 2' by using one translation and one reflection.



Name: Key

Date: _____

M8-U3: Notes #2 - Reflections

Class: _____

A **reflection** is a transformation which flips the figure over a given line

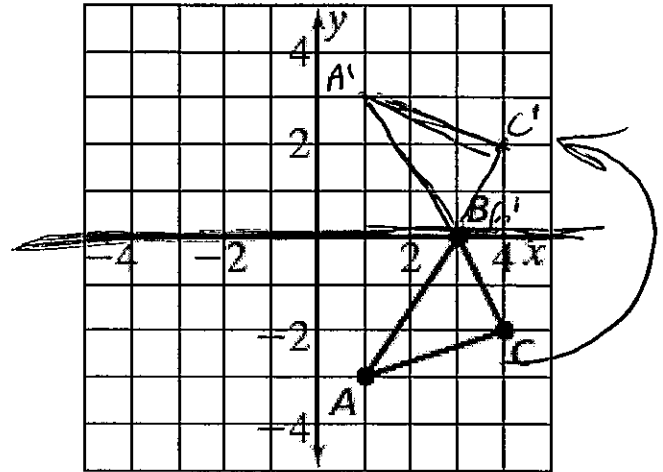
This line is called the line of reflection.

Example 1:

$\triangle ABC$ is being reflected over the x -axis.

it must be equal distance away

Draw and label the image $\triangle A'B'C'$.



We can use an arrow to describe this reflection.

$$\triangle ABC \rightarrow \triangle A'B'C'$$

What are the coordinates of:

$$A (1, -3) \rightarrow A' (1, 3)$$

$$B (3, 0) \rightarrow B' (3, 0)$$

$$C (4, -2) \rightarrow C' (4, 2)$$

Write a general rule for an x -axis reflection:

$$(x, y) \rightarrow (x, -y)$$

means opposite

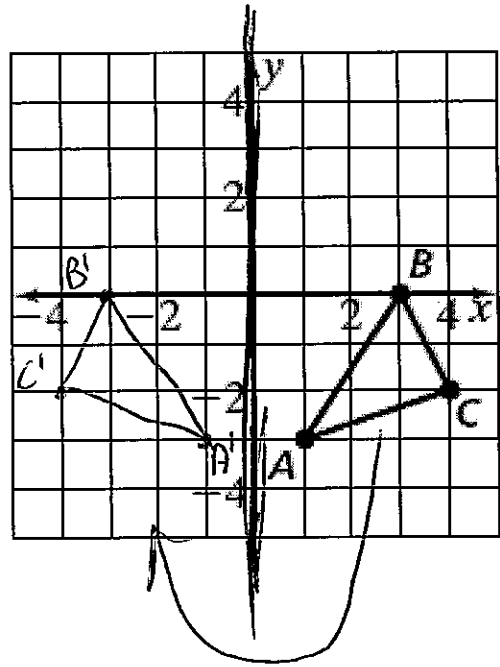
Tell me more about this figure, is it congruent or similar? Explain how you know.

same size and shape

Example 2:

$\triangle ABC$ is reflected over the y -axis.

Draw the image $\triangle A'B'C'$.



What are the coordinates of:

$$A \ (1, -3) \rightarrow A' \ (-1, -3)$$

$$B \ (3, 0) \rightarrow B' \ (-3, 0)$$

$$C \ (4, -2) \rightarrow C' \ (-4, -2)$$

Write a general rule for a y-axis reflection:

$$(x, y) \rightarrow \left(\underset{\uparrow}{-x}, y \right).$$

means
opposite

Example 3:

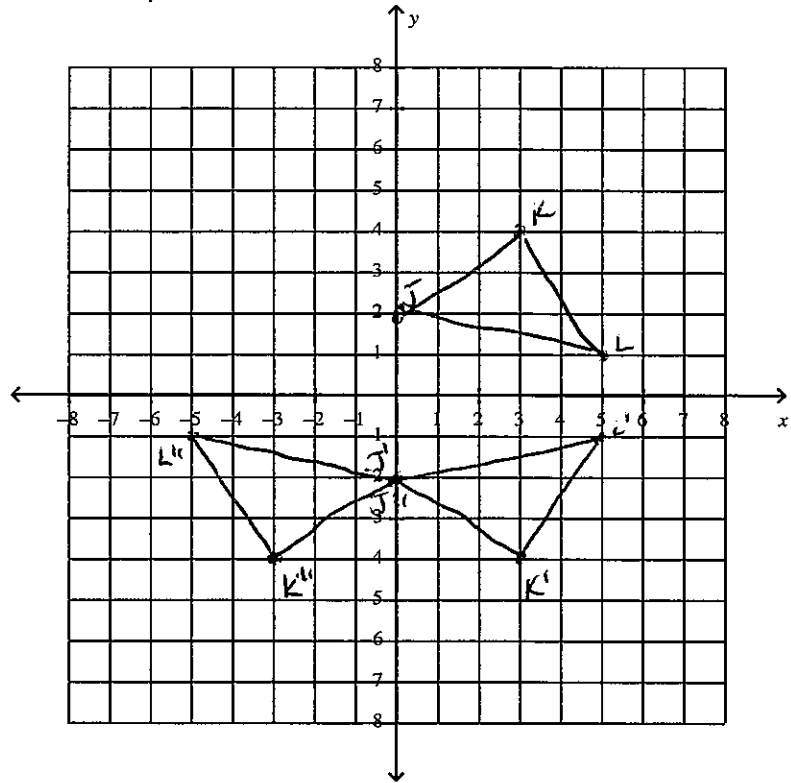
- a) Draw $\triangle JKL$ which has coordinates $J(0,2)$, $K(3,4)$, and $L(5,1)$.
 b) Draw the image $\triangle J'K'L'$ after a reflection of $\triangle JKL$ over the x-axis.
 c) List the coordinates of $J'K'L'$.

Hint: Change the y-value

$$J \underline{(0, 2)} \rightarrow J' \underline{(0, -2)}$$

$$K \underline{(3, 4)} \rightarrow K' \underline{(3, -4)}$$

$$L \underline{(5, 1)} \rightarrow L' \underline{(5, -1)}$$



- d) Draw the image $\triangle J''K''L''$ after a reflection of $\triangle J'K'L'$ over the y-axis.

Hint: Change the x-value

- e) List the coordinates of $J''K''L''$.

$$J' \underline{(\cancel{0}, -2)} \rightarrow J'' \underline{(0, -2)}$$

$$K' \underline{(\cancel{3}, -4)} \rightarrow K'' \underline{(-3, -4)}$$

$$L' \underline{(\cancel{5}, -1)} \rightarrow L'' \underline{(-5, -1)}$$

- f) Describe a different combination of two reflections that would move $\triangle JKL$ to $\triangle J''K''L''$.

reflect over y-axis and then over the x-axis

- g) Is this new image congruent or similar to the original figure?

$y=x$
 reflection rule
 $(x,y) \rightarrow (y,x)$

Example 4:

a) Draw $\triangle ABC$ which has coordinates $A(0,1)$, $B(3,4)$, and $C(5,1)$.

b) Draw the image $\triangle A'B'C'$ after a reflection of $\triangle ABC$ over $x = -1$.

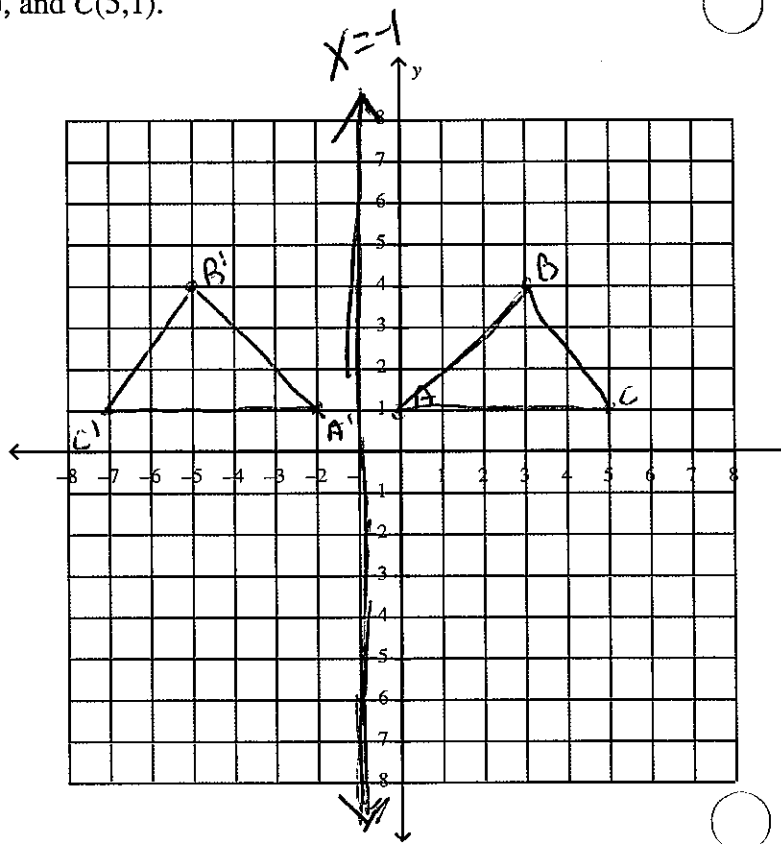
$x = -1$ vertical line
 Count, it makes it easier

c) List the coordinates of $A'B'C'$.

A $(0, 1)$ \rightarrow A' $(-2, 1)$

B $(3, 4)$ \rightarrow B' $(-5, 4)$

C $(5, 1)$ \rightarrow C' $(-7, 1)$



Example 5:

a) Draw $\triangle ABC$ which has coordinates $A(0,1)$, $B(3,4)$, and $C(5,1)$.

b) Draw the image $\triangle A'B'C'$ after a reflection of $\triangle ABC$ over $y = -2$.

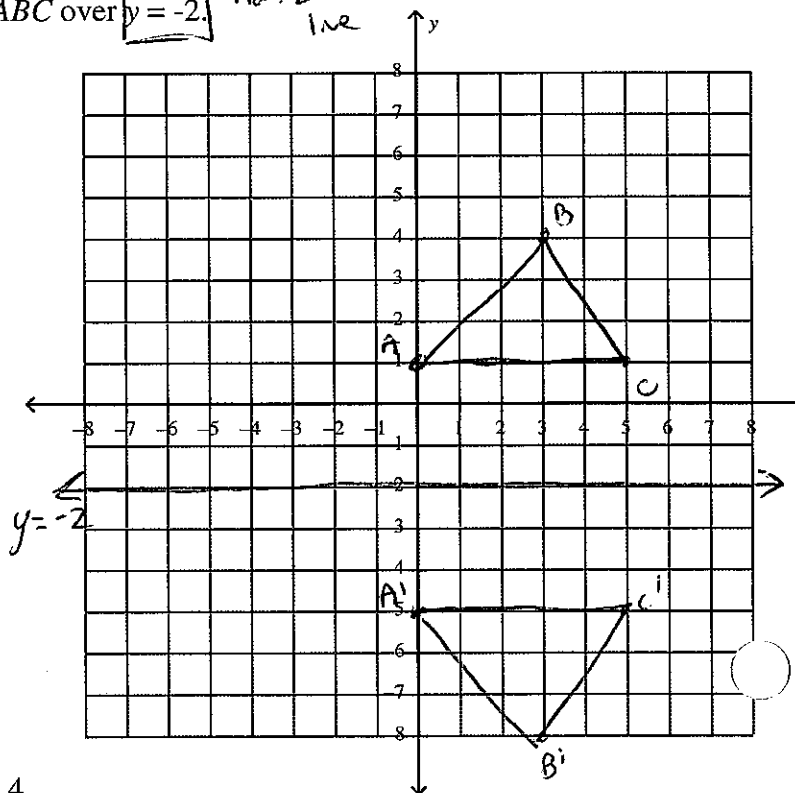
horizontal line

c) List the coordinates of $A'B'C'$.

A $(0, 1)$ \rightarrow A' $(0, -5)$

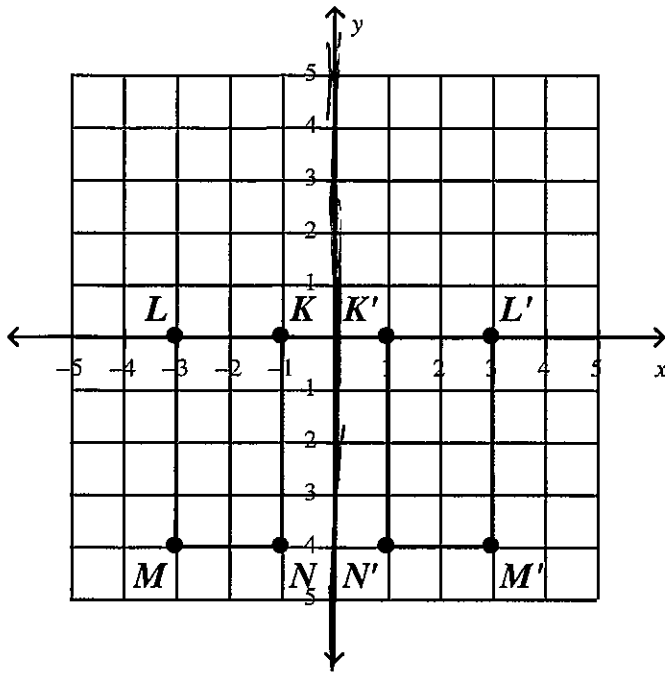
B $(3, 4)$ \rightarrow B' $(3, -8)$

C $(5, 1)$ \rightarrow C' $(5, -5)$



Example 6:

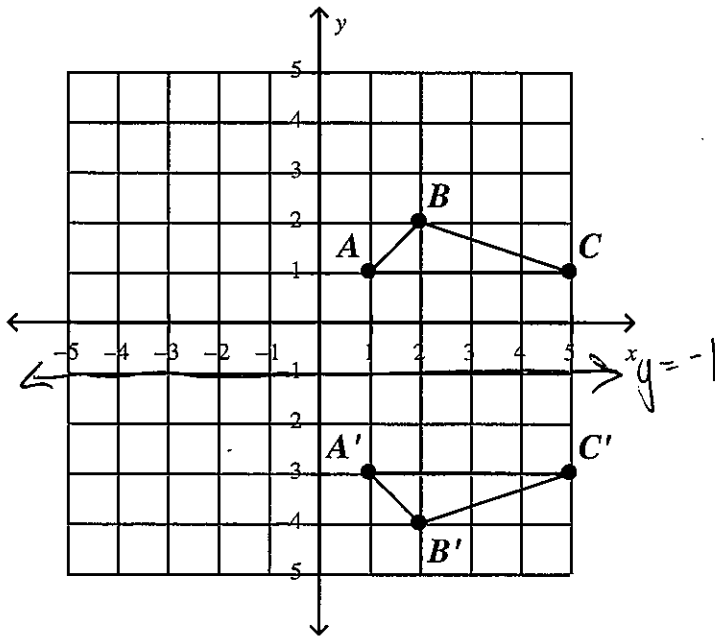
Draw the line of reflection which caused rectangle $KLMN$ to reflect onto rectangle $K'L'M'N'$. What is the equation of the line of reflection?



$y = ax + b$
or
 $x = 0$ line

Example 7:

Draw the line of reflection which caused triangle ABC to reflect onto triangle $A'B'C'$. What is the equation of the line of reflection?

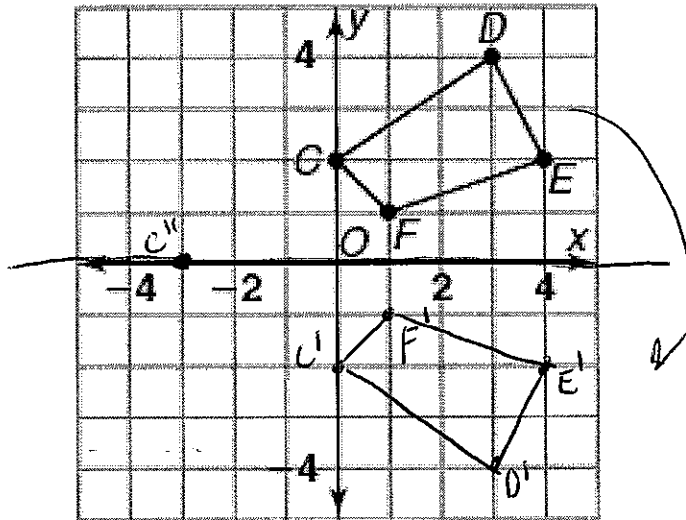


must be equal
distance away
So cut it in
half.

Example 8:

Quadrilateral $CDEF$ is plotted on the grid below.

On the graph, draw the reflection of polygon $CDEF$ over the x -axis. Label the image $C'D'E'F'$.

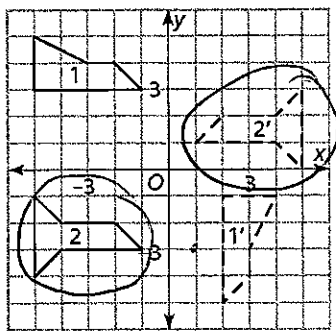


Now create polygon $C''D''E''F''$ by translating polygon $C'D'E'F'$ three units to the left and up two units. What will be the coordinates of point C'' ?

Answer $C''(-3, 0)$

Example 9:

Describe how you could move shape 2 to exactly match shape 2' by using one translation and one reflection.



Reflect then translate

y -axis reflection

then translate using the

$$\text{rule } (x, y) \rightarrow (x, y+4)$$

or

translate then reflect

translate using the rule $(x, y) \rightarrow (x, y+4)$

then reflect over the y -axis.