AGENDA

FRI
1/24

0:00:00

TO-DO

1) Turn in your HW

2) Work on your Warm-Up

REMINDERS

ALL electronics should be put away in your **BAG!**

Jul 31-9:37 PM

1) $\frac{x-3}{14} = \frac{6}{7}$

$84 = 7(x-3)$

$84 = 7x - 21$

$+21 \quad +21$

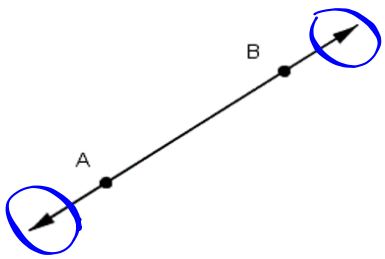
$\frac{105}{7} = \frac{7x}{7}$

$15 = x$

2. A. Label the figure with the correct geometric vocabulary.

line

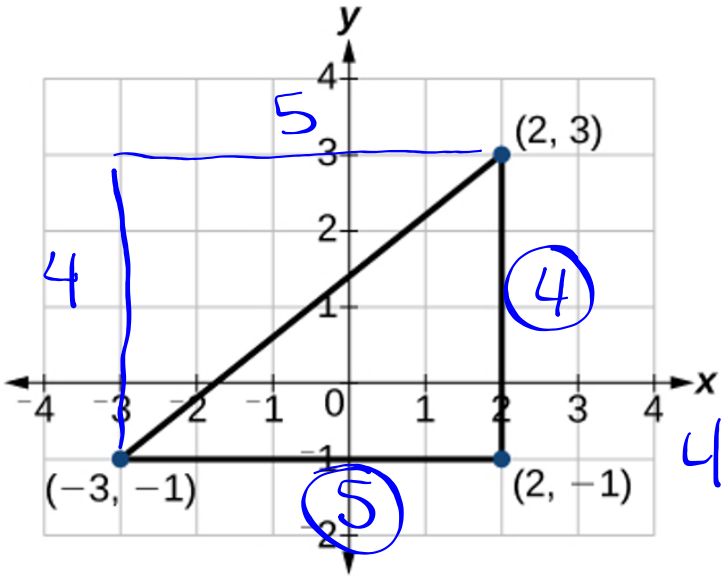
B. Name the figure with the appropriate notation.



$\overleftrightarrow{AB}$

Jan 15-7:37 AM

3. Calculate the perimeter of the triangle.



$\sqrt{(5)^2+(4)^2}$

$\sqrt{41}$

$4+5+\sqrt{41}$

$=\sqrt{41}+9$

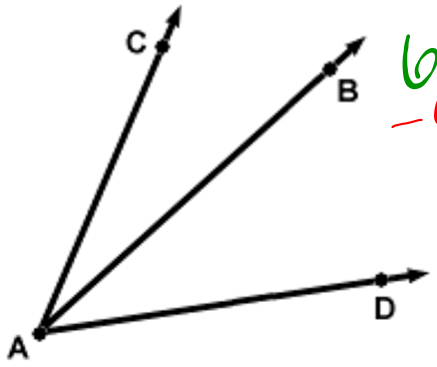
≈ 15.4

Jan 15-7:39 AM

4. $\overrightarrow{AB}$ is an angle bisector to $\angle CAD$. $m\angle CAD = 6x - 8$ and $m\angle BAD = 2x - 1$. Solve for x.

big big

small



$6x-8 = 2x-1+2x-1$

$6x-8 = 4x-2$

$-4x \quad -4x$

$2x-8 = -2$

$+8 \quad +8$

$\frac{2x}{2} = \frac{6}{2}$

$x = 3$

Jan 15-7:40 AM

What am I learning today?

Learning Objective 1B.1

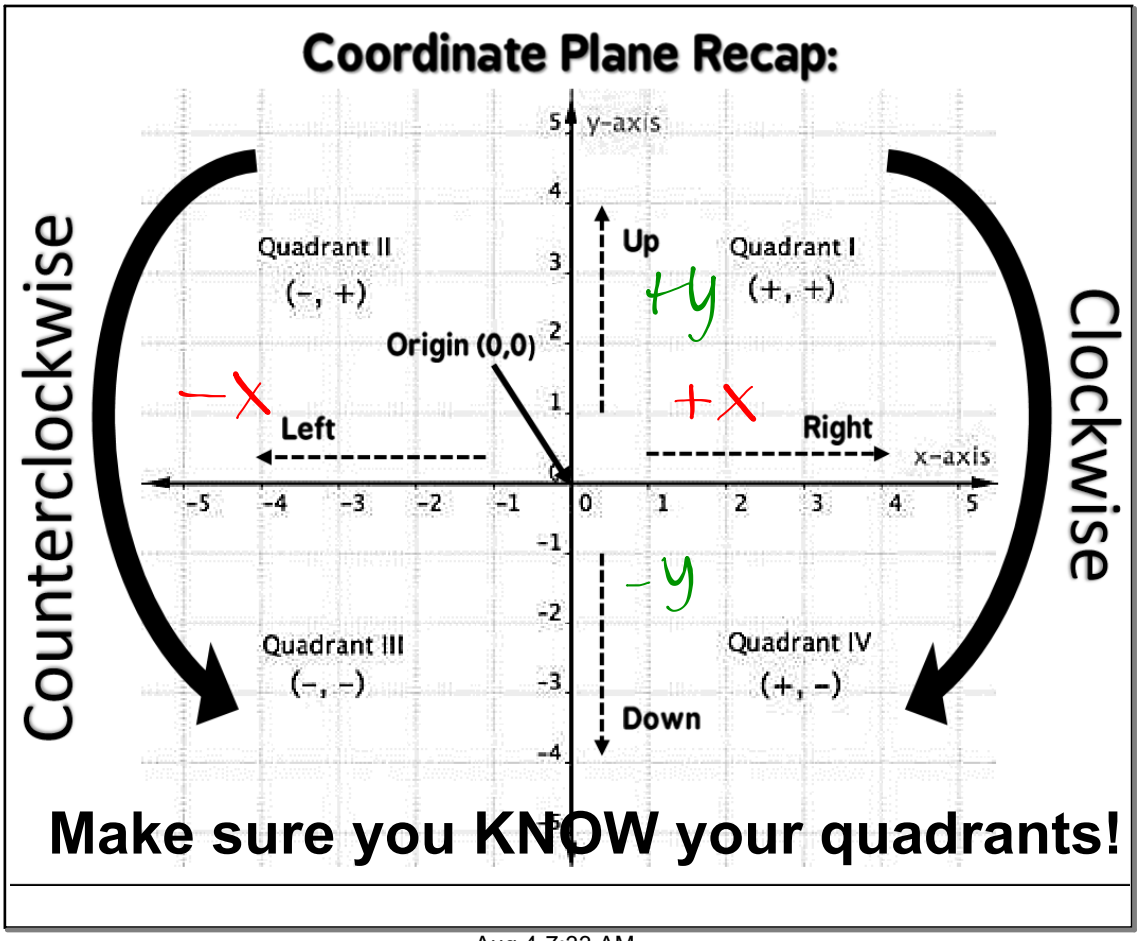
How to transform a figure

Jul 31-6:18 PM

What will I do to show that I have learned it?

I can... Slide a figure horizontally and vertically given a rule $(x \pm a, y \pm b)$

Jul 31-6:18 PM



Aug 4-7:33 AM

Transformation - An operation that **MOVES** a figure

Pre-Image - The name of the **OLD (original)** figure

Image - The name of the **NEW** figure **after** the transformation

Congruent Figures - Two polygons that are the **EXACT** same size and shape by having **CONGRUENT** sides and angles

Isometry - A **rigid** transformation that maps every part of a figure onto another figure so that the image and pre-image are the same **SIZE** and **SHAPE** creating **CONGRUENT** figures.

Aug 4-7:35 AM

4 qualities preserved during an isometry transformation

- **Length**
- **Angle** measures
- Parallel lines
- Distance between points

Jan 15-7:44 AM

Labeling Transformations

Label each point of an image by using the SAME letter as the corresponding point on the original figure followed by a **PRIME** symbol (')

Example: A (old) --> A' (new)

Each additional transformation requires another **PRIME** symbol to be added to each point.

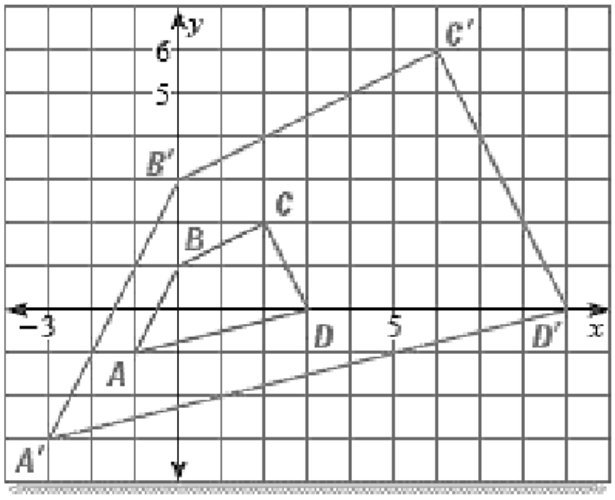
*1 transformation rule --> **A'** --> called A 'prime'*

*2 transformation rules --> **A"** --> called A 'double prime'*

*****To find the pre-image's coordinates from the image take the **OPPOSITE** of the given transformation rule.******

Aug 4-7:36 AM

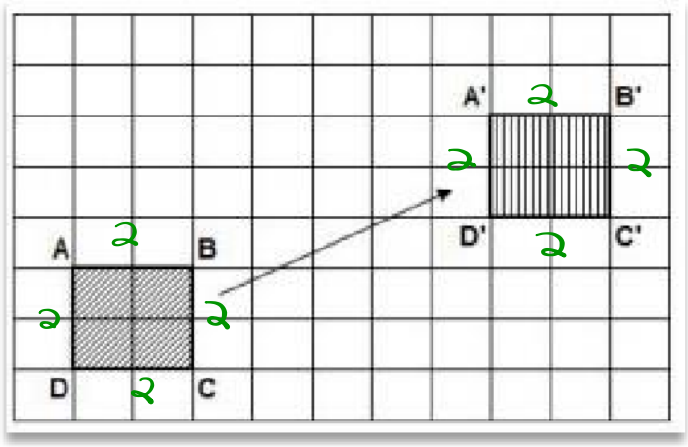
State whether the transformation was an isometry or not an isometry. Explain your reasoning.



No, not the same size

Aug 4-7:37 AM

State whether the transformation was an isometry or not an isometry. Explain your reasoning.



yes, same size & shape

Aug 4-7:37 AM

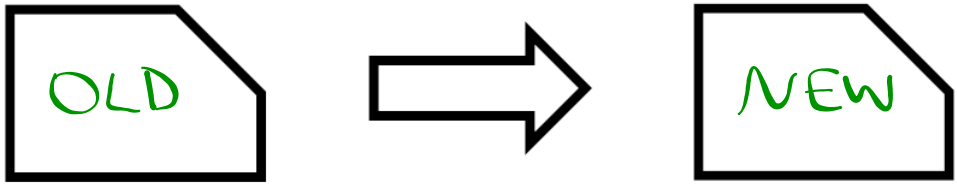
Learning Objective 1B.2

How to translate a figure.

Jan 12-8:03 AM

Translation - Moves EVERY point of a figure the same distance and direction

It simply "**SLIDES**" a figure to a new location.



This means a translation is an **ISOMETRY**.

Aug 4-7:38 AM

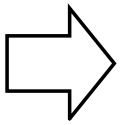
Translation Rule Notation: (x, y) --> $(x \pm a, y \pm b)$

$(x, y-3)$

- **a** indicates how many units the point moves **HORIZONTALLY**
- **b** indicates how many units the point moves **VERTICALLY**

$(x \pm a, y \pm b)$

Slide to the **right**

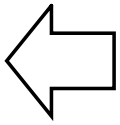


x --> (x + a)

Slide to the **up**

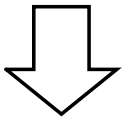
y --> (y + b)

Slide to the **left**



x --> (x - a)

Slide to the **down**



y --> (y - b)

Aug 4-7:42 AM

Find the coordinates of the image

$x-2, y+5$

1. Left two and up five

C(-2, 4) → C'(-4, 9)

A(0, -8) → A'(-2, -3)

T(-3, 5) → T'(-5, 10)

arrow notation

2. Rule: (x + 12, y - 17) $(x, y) \rightarrow (x+12, y-17)$

M(2, -9) → M'(14, -26)

O(-6, -2) → O'(6, -19)

W(0, 0) → W'(12, -17).

Aug 4-7:42 AM

Find the coordinates of the pre-image ✳

3. Rule: (x – 1, y + 3) → Backwards (x + 1, y − 3)

P(-1, 1) → P'(-2, 4)

I(1, -11) → I'(0, -8)

G(-2, 2) → G'(-3, 5)

4. Down one and right five Rule: (x + 5, y − 1) BK: (x − 5, y + 1)

G(-7, 5) → G'(-2, 4)

Y(-5, -9) → Y'(0, -8)

M(-8, 6) → M'(-3, 5)

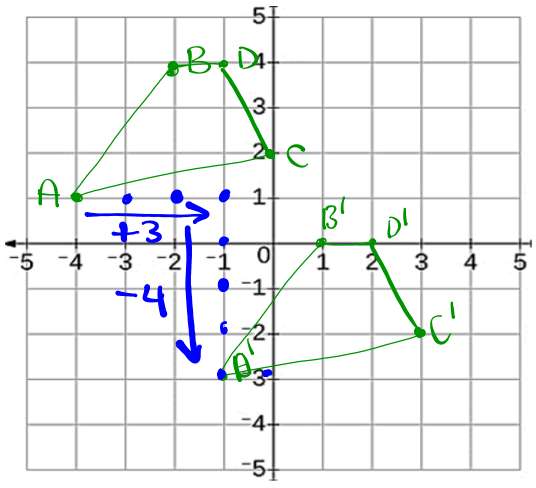
Aug 4-7:42 AM

5. **Translate the pre-image by going three units right and four units down. Graph both figures.**

Rule: (x, y) → (x + 3, y − 4)

A(-4, 1) B(-2, 4)
C(0, 2) D(-1, 4)

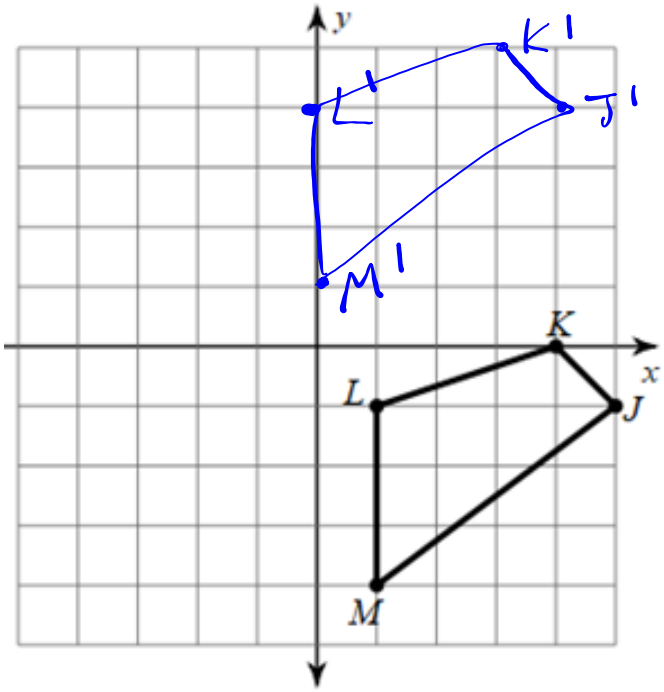
A'(-1, -3) B'(1, 0)
C'(3, -2) D'(2, 0)



Aug 4-7:43 AM

Translate each figure

6) Translate: 1 unit left & 5 units up



Translate each figure

7) Translate: 2 units right, 3 units down

A(1, 1) B(-2, -4) C(-5, 8)

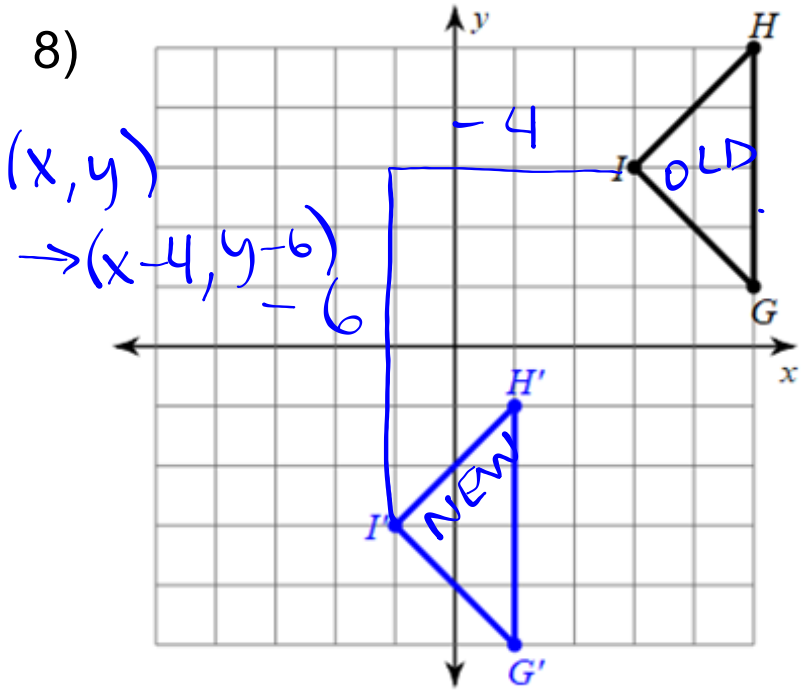
$(x+2, y-3)$

A'(3, -2) B'(0, -7)

C'(-3, 5)

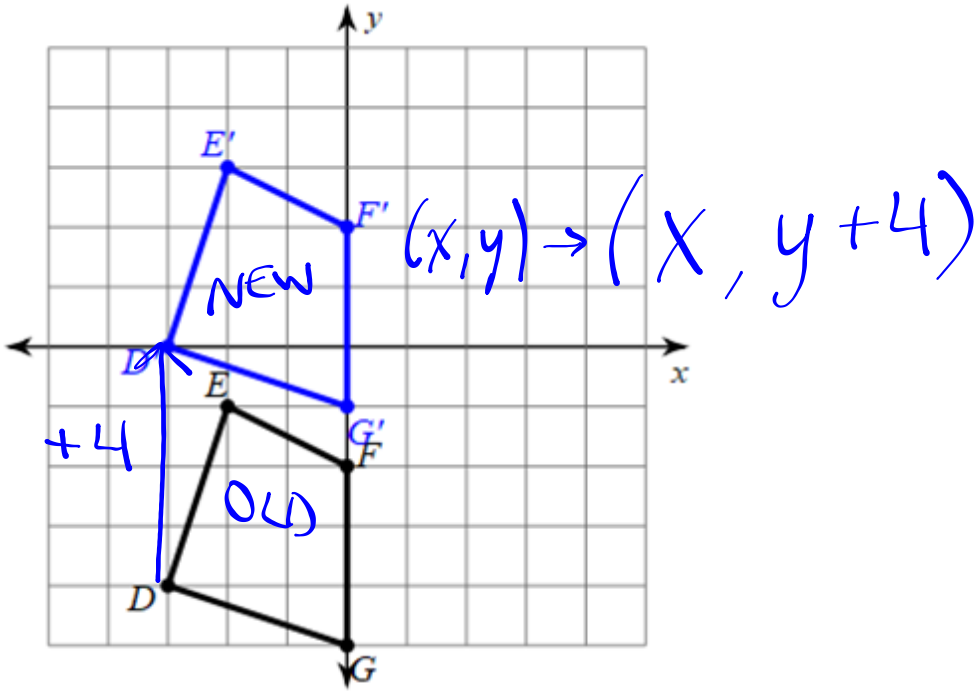
Create the rule that describes the given translation.

8)



Create the rule that describes the given translation.

9)



Create the rule that describes the given translation.

10) A(1, 2) B(-2, 5) C(-9, 0)

A'(1, 5) B'(-2, 8) C' (-9, 3)

$(x, y+3)$

11) E(6, 5) F(-2, -3) G(0, 4)

E'(3, -5) F'(-5, -13) G'(-3, -6)

$(x-3, y-10)$

Classwork:

Complete the classwork translating a figure.

HW: ~~Finish worksheets~~

Jul 31-9:12 PM