

Name: \_\_\_\_\_

Ms. Napolitano

Date: \_\_\_\_\_

Activity #: \_\_\_\_\_

I can use the least common multiple to add and subtraction fractions  
CCSS: 6.NS.4

# HOMEWORK (DAY 1)

MITKVA

Use the LCD to rewrite the fractions with the same denominator.

1.  $\frac{3}{4}, \frac{1}{10}$

2.  $\frac{2}{3}, \frac{5}{8}$

3.  $\frac{5}{14}, \frac{1}{6}$

4.  $\frac{1}{3}, \frac{5}{6}, \frac{4}{9}$

Copy and complete the statement using  $<$ ,  $>$ , or  $=$ .

5.  $\frac{3}{4} \text{ ? } \frac{2}{3}$

6.  $\frac{5}{12} \text{ ? } \frac{4}{15}$

7.  $3\frac{5}{18} \text{ ? } 3\frac{7}{24}$

8.  $\frac{18}{8} \text{ ? } 2\frac{1}{4}$

Add or subtract. Write the answer in simplest form.

9.  $\frac{1}{2} + \frac{3}{5}$

10.  $\frac{4}{9} - \frac{1}{4}$

11.  $\frac{5}{8} - \frac{3}{14}$

12.  $\frac{7}{15} + \frac{3}{10}$

13.  $4\frac{1}{8} + 3\frac{3}{4}$

14.  $5\frac{7}{12} - 2\frac{2}{9}$

15.  $1\frac{1}{3} + \frac{6}{7}$

16.  $4\frac{11}{12} - 2\frac{3}{20}$



Name: \_\_\_\_\_

Ms. Napolitano

Date: \_\_\_\_\_

Activity #: \_\_\_\_\_

I can use the least common denominator to determine an equivalent fraction.

CCSS: 6.NS.4

# HOMEWORK: UCLA

**Least Common Denominator (LCD)**

Find the least common multiple for the following numbers

	Least Common Multiple
2 and 3	
3 and 4	
2, 3 and 5	
3 and 12	
6 and 8	
8 and 12	
3, 4, and 5	

**Build Equivalent Fractions with the LCD**

First determine the least common denominator (LCD) for the below fractions.  
Then build up the fractions so that they have this LCD.

Fractions	Least Common Denominator (LCD)	Equivalent Fractions with the LCD
$\frac{1}{3}$ and $\frac{1}{2}$		
$\frac{2}{3}$ and $\frac{3}{4}$		
$\frac{1}{5}$ and $\frac{2}{7}$		
$\frac{2}{5}$ and $\frac{1}{6}$		
$\frac{2}{3}$ and $\frac{2}{5}$		
$\frac{3}{7}$ and $\frac{2}{9}$		
$\frac{1}{2}$ , $\frac{1}{3}$ and $\frac{1}{4}$		



Emory

Name: \_\_\_\_\_  
Ms. Napolitano

Date: \_\_\_\_\_  
Unit 2

## Homework Day 2

Show all of your work on a separate sheet of paper.

Identify the terms and like terms in the expression.

1.  $1.3x - 2.7x^2 - 5.4x + 3$

2.  $10 - \frac{3}{10}m + 6m^2 + \frac{2}{5}m$

Simplify the expression.

3.  $-\frac{15}{4}b + \frac{5}{6}b$

4.  $60m - 15(4 - 8m) + 20$

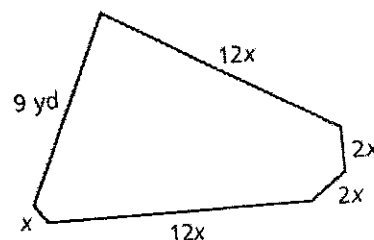
5.  $4(5.8 - 9x) + 8.2 + 22x$

6.  $9y - 15y + 12 - 6y$

7.  $v + 13 - 8(v + 2)$

8.  $\frac{5}{3}(5x + 9) + \frac{4}{5}(1 - 9x)$

9. Write an expression in simplest form that represents the perimeter of the polygon.



Draw a diagram that shows how the expression can represent the area of a figure. Then simplify the expression.

10.  $8(3x - 1)$

11.  $(5 + 2)(x + 3x)$

12. Danielle is  $x$  years old. Her sister is 5 years older and her brother is half Danielle's age. Write an expression in simplest form for the sum of their ages.

13. The length of a rectangular field is 30 more than twice its width. Write an expression in simplest form for the perimeter of the field in terms of its width  $w$ .



7th grade

Extra Practice

What is the product of  $\left(-\frac{1}{4}\right) \times \left(-\frac{3}{7}\right)$ ?

- A  $-\frac{7}{12}$
- B  $-\frac{3}{28}$
- C  $\frac{3}{28}$
- D  $\frac{7}{12}$

What is the value of the expression?

$$\frac{8}{15} \div (-0.35)$$

- A  $-\frac{75}{14}$
- B  $-\frac{32}{21}$
- C  $-\frac{21}{32}$
- D  $-\frac{14}{75}$

What is the value of the expression below?

$$\left(3\frac{1}{2} - 9\frac{3}{4}\right) \div (-2.5)$$

- A  $-2.5$
- B  $-2.3$
- C  $2.3$
- D  $2.5$

Evaluate.

$$\left(-\frac{7}{10} + 0.15\right) \div (-0.125)$$

- A  $-6.8$
- B  $-4.4$
- C  $4.4$
- D  $6.8$

What is the value of the expression  $\frac{\left(\frac{2}{3} - \frac{5}{6}\right)}{\frac{3}{4}}$ ?

A  $-\frac{2}{9}$

B  $-\frac{1}{8}$

C  $\frac{1}{8}$

D  $\frac{2}{9}$

Amber determined that the expression  $\frac{-\frac{1}{2}}{-\frac{41}{15}}$  is equivalent to  $\frac{15}{82}$ . Which statement describes the process Amber could have used?

A She divided  $-\frac{1}{2}$  by  $-15$  and then divided the result by  $41$ .

B She multiplied  $-\frac{1}{2}$  by  $-15$  and then divided the result by  $41$ .

C She divided  $-\frac{1}{2}$  by  $-15$  and then multiplied the result by  $41$ .

D She multiplied  $-\frac{1}{2}$  by  $-15$  and then multiplied the result by  $41$ .

Explain the steps needed to determine the value of the expression shown below. Be sure to provide the correct value of the expression in your explanation.

$$\frac{\frac{1}{2}}{-\frac{2}{5}} + \left(-\frac{1}{4}\right)$$

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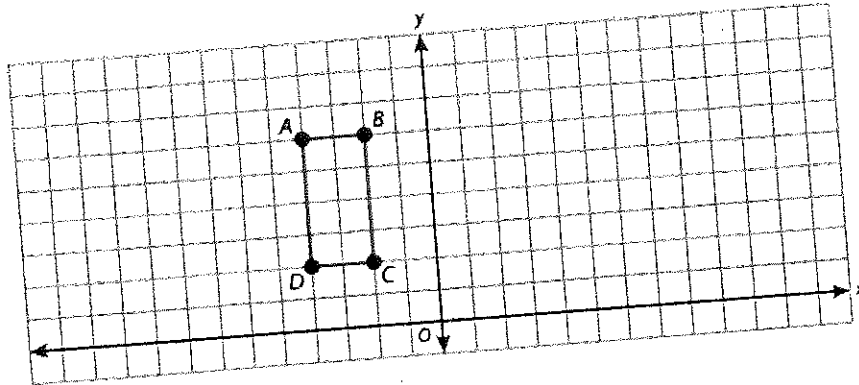
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## HOMEWORK

Johns

- 1 Polygon  $ABCD$  is shown on the coordinate plane. Sketch the image after it is rotated  $90^\circ$  clockwise about  $O$  and then dilated with scale factor 2 and center  $O$ .



Make sure you rotate the polygon clockwise.



- 2 The coordinates of  $\triangle DEF$  are  $D(-4, 4)$ ,  $E(2, 4)$ , and  $F(0, 2)$ . The triangle is dilated with scale factor  $\frac{1}{2}$  and center  $O$ . What are the coordinates of the vertices of the image of  $\triangle DEF$ ?

- A  $(2, -2), (-1, -2), (0, -1)$
- B  $(-8, 8), (4, 8), (0, 4)$
- C  $(-2, 2), (1, 2), (0, 1)$
- D  $(4, -4), (4, 2), (2, 0)$

Sue chose A as the correct answer. How did she get that answer?

How do you use the scale factor to find the coordinates of the image?



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**3** Tell whether each statement is *True* or *False*.

- a. A dilation image is always congruent to the original figure. ☐ True ☐ False
- b. A rotation image is always congruent to the original figure. ☐ True ☐ False
- c. A reflection image is never congruent to the original figure. ☐ True ☐ False
- d. A translation image is always congruent to the original figure. ☐ True ☐ False

**4** Polygon *LMNP* was transformed to Polygon *WXYZ*.

**Part A**

Describe a sequence of transformations that maps Polygon *LMNP* to Polygon *WXYZ*.

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**Part B**

Find the perimeters of Polygon *WXYZ* and Polygon *LMNP*. Then write the ratio of the perimeter of Polygon *WXYZ* to the perimeter of Polygon *LMNP*. How does this ratio compare to the scale factor you found in Part A?

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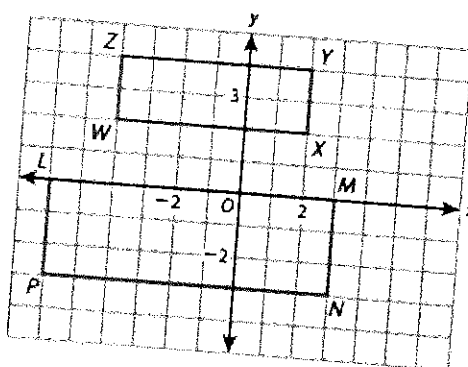


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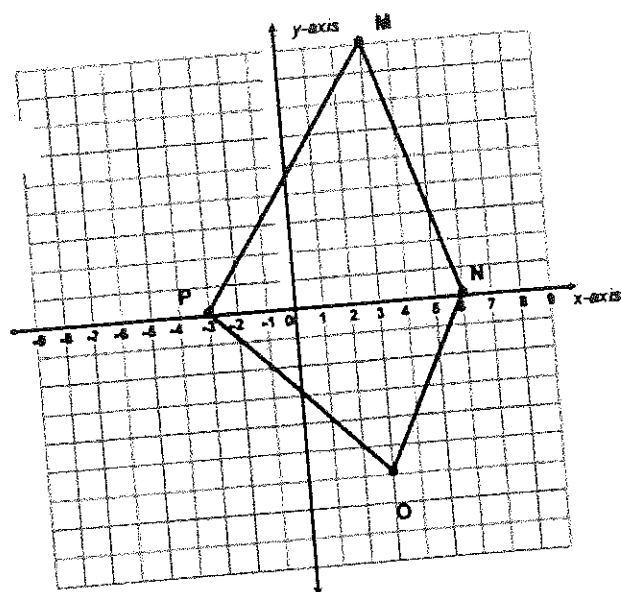


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What type of transformation can change the size of a figure?



# Caltech



Graph the dilated image of quadrilateral MNOP using a scale factor of  $\frac{1}{3}$  and the origin as the center of dilation.

M: \_\_\_\_\_

M': \_\_\_\_\_

N: \_\_\_\_\_

N': \_\_\_\_\_

O: \_\_\_\_\_

O': \_\_\_\_\_

P: \_\_\_\_\_

P': \_\_\_\_\_

The table below shows the coordinates of triangle RST and the coordinates of R' in triangle R'S'T'. Triangle R'S'T' is a dilation of triangle RST.

Triangle RST		Triangle R'S'T'	
R	$(-2, -3)$	R'	$(-6, -9)$
S	$(0, 2)$	S'	
T	$(2, -3)$	T'	

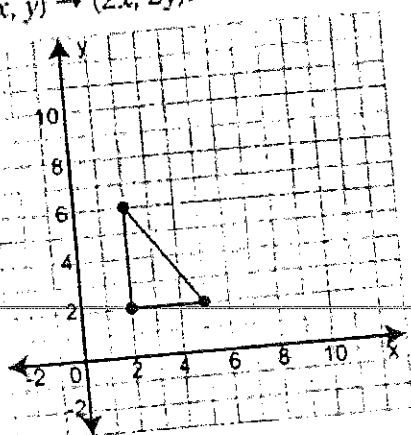
## Part A

What are the coordinates of point S' and point T'?

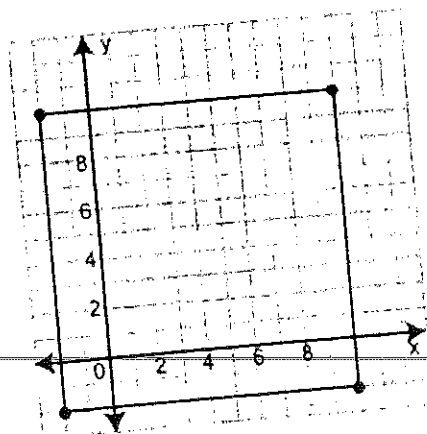
Answer S' = (\_\_\_\_, \_\_\_\_)

T' = (\_\_\_\_, \_\_\_\_)

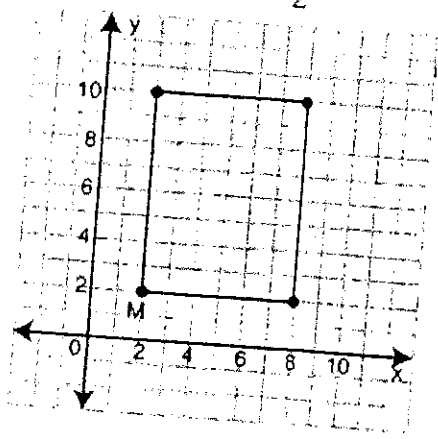
- The center of dilation is the origin and the scale factor is 2. Use the rule  $(x, y) \rightarrow (2x, 2y)$ .



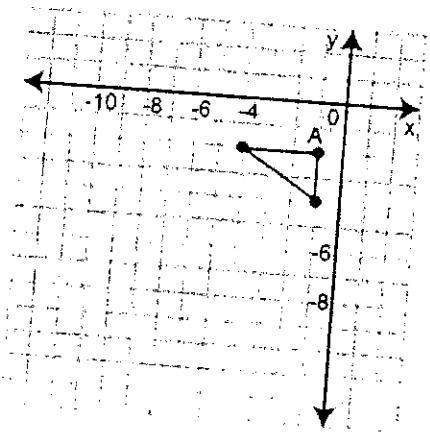
- The center of dilation is the origin and the scale factor is  $\frac{1}{2}$ .



3. The center of dilation is point  $M$  and the scale factor is  $\frac{1}{2}$ .



4. The center of dilation is point  $A$  and the scale factor is 3.



The following sets of points are the vertices of figures and their dilation images. For each two sets of points, give the scale factor.

5.  $A(1, 1)$ ,  $B(2, 6)$ ,  $C(6, 2)$   
 $A'(4, 4)$ ,  $B'(8, 24)$ ,  $C'(24, 8)$
6.  $R(-3, -9)$ ,  $S(-6, 3)$ ,  $T(-3, 3)$   
 $R'(-1, -3)$ ,  $S'(-2, 1)$ ,  $T'(-1, 1)$

## GROUP WORK

In the diagram below,  $\triangle PQR$  is similar to  $\triangle LMN$ . Describe the sequence of transformations that transforms  $\triangle PQR$  to  $\triangle LMN$ .

