## Geometry Warm-ups/Review Problems week 16

## Monday:

1. Create a graphic representation for the following scenario (Do not draw to scale):Given $\Delta \mathrm{MNO}$ with $M N \perp N O, N P$ is the altitude to MO, with point $P$ collinear to points $M$ and $O$. MQ bisects $\angle N M O$, with $Q$ being a point on one of the segments of $\triangle M N O$. $T$ is the intersection of segments $M Q$ and $N P$. How many right triangle are in this figure?
2. 




How does the two dilations differ?
1.


Triangle PQR was dilated to create triangle $P^{\prime} Q^{\prime} R^{\prime}$.
What was the center of dilation?
Are those triangles congruent? Justify
What was the scale used to create triangle $P^{\prime} Q^{\prime} R^{\prime}$
Triangle PQR was reduced or enlarge in order to create $P^{\prime} Q^{\prime} R^{\prime}$ ?

## Wednesday

1) Given isosceles triangle $D E F$ with $\mathrm{m}<\mathrm{E}=90^{\circ}$, and C is the midpoint of $\overline{D F}$. Which true geometric facts make about $\triangle D E F$ using the given information and deductive reasoning?
2) Given the quadrilateral WXYZ, $\overline{W X}$ II $\overline{Z Y}$. Camron believes the quadrilateral is a parallellogram and Kaylee believes the quadrilateral is a trapezoid. What other condition must exist for Camron to prove that WXYZ is a parallelogram?

Given: $a \| b$ and $c \| d$
Prove : $\angle 4 \cong \angle 2$


We are given that $a \| b$. Therefore, we know $\angle 2 \cong \angle 3$ because alternate exterior angles of parallel lines intersected by a transversal are congruent. We are also given $c \| d$. Therefore, we know $\angle 4 \cong \angle 3$ because alternate exterior angles of parallel lines intersected by a transversal are congruent. Thus, $\angle 4 \cong \angle 2$, because -

A alternate exterior angles of parallel lines intersected by a transversal are congruent
B corresponding angles of parallel lines intersected by a transversal are congruent
C two angles congruent to the same angle will be congruent to each other
D vertical angles are congruent

## Friday:

In quadrilateral $A B C D, \overline{A B} \| \overline{C D}, \angle A \cong \angle B$, and $\overline{A B} \not \equiv \overline{C D}$. Which of the following statements is a reasonable conclusion?

A $m \angle A \cong m \angle C$
B Quadrilateral $A B C D$ is a rectangle.
C Quadrilateral $A B C D$ is an isosceles trapezoid.
D $\overline{A D} \| \overline{B C}$

Which set of statements represents a valid deductive argument?
A All quadrilaterals have 4 angles.
All parallelograms have 4 angles.
All quadrilaterals are parallelograms.
B All parallelograms have diagonals that bisect each other.
All parallelograms have opposite sides that are parallel.
All polygons whose diagonals bisect each other have opposite sides that are parallel.
C All rectangles have 4 right angles.
All squares have 4 right angles.
All rectangles are squares.
D All parallelograms have 4 sides.
All polygons with 4 sides are quadrilaterals.
All parallelograms are quadrilaterals.

| Final Exam Structure |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total \# of <br> Problems | Calculator <br> Problems | Non-Calculator <br> Problems | Multiple choice <br> Problems | Free Response <br> Problems | Problems from <br> the past |  |
| 40 | 2 | 38 | 34 | 6 | 33 |  |

Major Qz Wk 6, Major Quiz, Wk 4, One problem Quiz Wk 15, Test Week 11, Pow wk 10, POW wk 8, Tessellations, Last project, Warm-ups. Etc.

