Name:_____Due Date:_____ Period: _____

GEOMETRY **CR #4 (Units 1 - 4)**

PART I: Write the answer of your choice in the space provided. Provide work that justifies your choice in the space provided.

Work Space for Justification

_____1. What are the coordinates of M', the image of $M(2,4)$, after a counterclockwise rotation of 90º about the origin? (Unit 1 – Transformations)

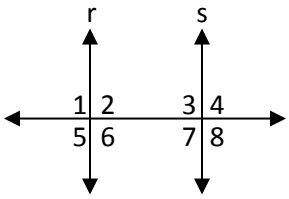
1) $(-2,4)$

2) $(-2,-4)$

3) $(-4,2)$

4) $(-4,-2)$

_____2. Which condition guarantees that $r \parallel s$?
(Unit 3- Proving Parallel lines)



[A] $\angle 1 \cong \angle 2$
[B] $\angle 2 \cong \angle 3$
[C] $\angle 2 \cong \angle 7$
[D] $\angle 1 \cong \angle 4$

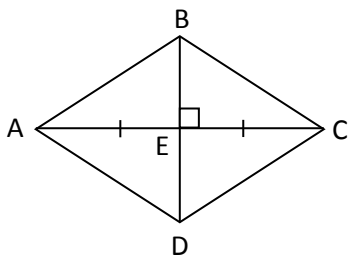
_____3. Which transformation of the line $x = 3$ results in an image that is perpendicular to the given line?
(Unit 1 – Transformations)

1) $r_{x\text{-axis}}$ 3) $r_{y=x}$

2) $r_{y\text{-axis}}$ 4) $r_{x=1}$

_____4. Which of these congruence statements could be proven from the information given in the figure?
(Unit 4- Triangle Congruence)

[A] $\Delta AEB \cong \Delta CED$
[B] $\Delta BAC \cong \Delta DAC$
[C] $\Delta ABD \cong \Delta BCA$
[D] $\Delta DEC \cong \Delta DEA$

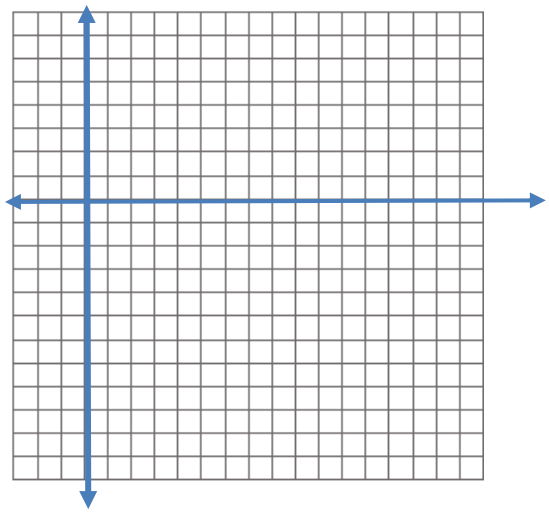


PART II: For each question in this section you must show ALL WORK, including formulas, substitutions, drawings, etc. Each question is worth 2 credits. If a solution is given with no work, only one credit will be given.

5. Write an equation of the line that passes through (4, 6) and is perpendicular to $y = \frac{2}{3}x + 7$. (Unit 3 - Lines in the Coordinate Plane)

PART IV: For each question in this section you must show ALL WORK, including formulas, substitutions, drawings, etc. Each question is worth 4 credits. If a solution is given with no work, only one credit will be given.

6. What is the area of a rectangle with vertices A(1,0), B(4,4), C(12,-2), and D(9, -6) ?
(Unit 1- Distance Formula)



7. **Given:** $\overline{MN} \parallel \overline{OP}$, $\overline{MO}$ bisects $\overline{PN}$ at Q

Prove: $\overline{MQ} \cong \overline{OQ}$

(Unit 4- Triangle Congruence)