Chapter 3: Perimeter \& Area of Geometric Figures on the Coordinate Plane

Name: $\qquad$
Past due on: $\qquad$ Period: $\qquad$

## 3.REV. 1 - End of Chapter Review

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

1. Rectangle RECT is given on the coordinate plane.
a. Translate RECT so that one vertex of the image is located at the origin and label the vertices of the translated image.
b. Calculate the perimeter and the area of the image. Round your answer to the nearest hundredth, if necessary.

2. One side of a square has endpoints $(2,1) \&(-1,2)$. Calculate the perimeter and the area of the image. Round your answer to the nearest hundredth, if necessary.
3. Triangle TRI is given on the coordinate plane; its base has been identified: $\overline{T I}$
a. Determine the coordinates of $N$. Refer to the steps on page 243.
b. What is the height of triangle TRI?
c. Calculate the area of triangle $T R I$. Round your answer to the nearest hundredth, if necessary.


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

4. Double the area of triangle $H N W$ by manipulating the base. Label the image $H^{\prime} N W$.

Calculate the area of the pre-image and the image to verify your solution.

5. Double the area of triangle $A R T$ by manipulating the height. Label the image $A^{\prime} R T$.

Calculate the area of the pre-image and the image to verify your solution.

6. Polygon $V W X Y Z$ has 5 congruent sides and is graphed on the coordinate plane. The polygon has points $X(2,2) \& Y(5,-5)$. What is the perimeter of $V W X Y Z$ ? Round your answer to the nearest hundredth, if necessary.
7. Parallelogram $P A R L$ is given on the coordinate plane.
a. Calculate the perimeter of parallelogram PARL. Round your answer to the nearest hundredth, if necessary.
b. Use the boxing method to determine the area of parallelogram PARL.


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8. Trapezoid TRAP is given on the coordinate plane.
a. Calculate the perimeter of trapezoid $T R A P$. Round your answer to the nearest hundredth, if necessary.
b. Use the slope formula to show that $\overline{A P}$ is the height of trapezoid TRAP.
c. Calculate the area of trapezoid TRAP. Round your answer to the nearest hundredth, if necessary.

9. The composite figure $F A L C O N$ is given on the coordinate plane.
Calculate the perimeter and the area of the figure. Round your answers to the nearest hundredth, if necessary.


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

## EXTRA CREDIT

Calculate the perimeter and the area of the figure. Round your answers to the nearest hundredth, if necessary.
All work must be shown for credit.


