

# CHAPIER 6: <br> SIMILARTTY THROUCH TRINSFORMATIONS 

Cornell Notes/Summary Sheet

Name: $\qquad$
Period: $\qquad$
Turn this in on the day of the test. This is an assignment grade.

## Prior Knowledge: Solving Proportions

CROSS PRODUCT PROPERTY: If $\frac{a}{b}=\frac{c}{d}$, then $a \times d=b \times c$.

## Lesson 6.1 - Big Ideas

- What does it mean when we say figures are similar?
- Pre-image vs. Image
- Dilations
- Scale factor (of the dilation)
- Coordinate notation to describe dilations centered at the origin, using a scale factor of $k$


## Lesson 6.2 - Big Ideas

- Angle-Angle (AA) Similarity Theorem
- Side-Side-Side (SSS)

Similarity Theorem

- Side-Angle-Side (SAS) Similarity Theorem


## Your Notes

Fill in the blank: If the center of dilation is at the origin, a point $(x, y)$ is dilated to $\qquad$ by a scale factor of $k$.

Your Notes


## Lesson 6.3 - Big Ideas

- Angle Bisector/Proportional Side Theorem
- Triangle Proportionality Theorem
- Converse of the Triangle Proportionality Theorem
- Proportional Segments Theorem
- Triangle Midsegment Theorem

Your Notes
Angle Bisector/Proportional Side Theorem


Proportional Segments Theorem


Triangle Proportionality Theorem


Triangle Midsegment Theorem


## Lesson 6.4 - Big Ideas

## Your Notes

- Geometric mean
- Right Triangle/Altitude Similarity Theorem
- Right Triangle Altitude/Hypotenuse Theorem
- Right Triangle Altitude/Leg Theorem



## Lesson 6.6 - Big Ideas

Your Notes

- Indirect measurement
$\square$

