|  | CHAPTER 7: <br> CONGRUENGE THROUGH IRANSFORMAIIONS <br> Cornell Notes/Summary Sheet | Name: $\qquad$ <br> Period: $\qquad$ <br> Turn this in on the day of the test. This is an assignment grade. |
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|  | DISTANCE FORMULA: $d=\sqrt{\left(x_{2}-x_{1}\right)^{2}+\left(y_{2}-y_{1}\right)^{2}}$ |  |
| Lesson 7.1 - Big Ideas <br> - What is a rigid motion? <br> - Coordinate rules regarding translations, rotations, and reflections <br> Look at examples on pages $589-591$. | Your Notes <br> ORIGINAL <br> TRANSLATIONS RIGHT <br> ROTATIONS <br> (COUNTERCLOCKWISE) <br> REFLECTIONS | $\text { OINT: }(x, y)$ <br> LEFT UP DOWN $\underline{180^{\circ}} \quad \underline{270^{\circ}}$ |
| Lesson 7.2 - Big Ideas <br> - What does it mean when we say two triangles are congruent? <br> - What are the properties of congruent triangles? | Your Notes |  |
| Lesson 7.3 - Big Ideas <br> - Side-Side-Side (SSS) Congruence Theorem <br> Look at an example - on the coordinate plane - on page 592. | Your Notes |  |

## Lesson 7.4 - Big Ideas

- Side-Angle-Side (SAS) Congruence Theorem
- The included angle

Look at an example - on the coordinate plane - on page 593.

## Lesson 7.5 - Big Ideas

- Angle-Side-Angle (ASA) Congruence Theorem
- The included side

Look at an example - on the coordinate plane - on page 594.

## Lesson 7.6 - Big Ideas

- Angle-Angle-Side (AAS) Congruence Theorem
- The non-included side

Look at an example - on the coordinate plane - on page 595.

## Lesson 7.7 - Big Ideas

- Does the given information result in triangle congruency?
- What additional infomration is needed to prove specified triangles congruent?
- What congruence theorem proves triangle congruency?


## Lesson 7.8 - Hints

## Congruent Triangle Proofs

- Look for key words and symbols in the given information.
- Address "givens" one at a time.
- Ask yourself, "What can I conclude from this?"
- If it's a congruence, mark your diagram.
- REFER TO YOUR "COMMONLY USED REASONS" CARD!!! Don't guess.
- Look at the diagram: is there any information that you can get from it? (i.e. linear pairs, vertical angles...)
- Angles are numbered for a reason.
- Make a notation, next to the step number, where you say a pair of sides, or angles, are congruent.
- Be aware of triangles that share sides (or angles), there will be a reflexive step.

