GSE Geometry **Unit 4A Review Sheet** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Circle Theorems (Angles, Chords, and Tangents)

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| **Topic**: Vocabulary | **Things to Remember**:   * Notation is VERY important |
| **Examples**: | |
| 1. What is a LINE that goes through the circle at two points? | 2. What line segment goes from the center to the outside of the circle? |
| 3. Name TWO common tangents.  4. Name a secant and a chord using the same letters. | |
| **Topic**: Central Angles | **Things to Remember**:   * Arc = Angle |
| **Examples**: | |
| 5. | 6. |
| **Topic**: “ON”/Inscribed Angles | **Things to Remember**:   * ½ Arc = Angle |
| **Examples**: | |
| 7. \_\_\_\_\_\_\_ | 8. Solve for x. |
| 9. Arc CB = 120o and Angle DCB = 2x + 10. Solve for x.  Image result for tangent and chord angles | 10. Solve for all variables.  Related image |
| 11. Solve for x.  Image result for inscribed angles | 12. Solve for x. |
| **Topic**: “IN” Angles | **Things to Remember**: |
| **Examples**: | |
| 13. Solve for x.  Image result for angles with intersecting chords | 14. Solve for x.  Image result for angles with intersecting chords |
| 15. Solve for x.  Image result for angles with intersecting chords | 16. Angle CEA = 5x, Arc DA = 110o, Arc BC = 60o. Solve for x.  Image result for angles with intersecting chords |
| **Topic:** “OUT” angles | **Things to Remember**: |
| **Examples** | |
| 17. Solve for x. | 18. |
| 19. Solve for x.  Related image | 20. Solve for x.  Image result for angles with intersecting chords |
| **Topic:** Tangent Theorems | **Things to Remember**:   * Radius and tangents meet at a RIGHT angle * Tangents that go to the same circle and same point are CONGRUENT |
| **Examples** | |
| 21. **Is  tangent to 🞊C? Explain your reasoning. Show work!** | 22. Solve for the radius. |
| 23. Solve for x. | 24. Find the perimeter.  Image result for perimeter using tangent |
| **Topic:** Chords | **Things to Remember**:   * Congruent arcs = congruent chords * If a diameter/radius is perpendicular to a chord, the chord is bisected * If two chords are equidistant (same distance), the chords are congruent. |
| 25. Solve for x. | 26. Solve for x.  **X**  **5**  **13** |
| 27. Solve for x. | 28. What is the length of XY? |
| 29. Are JK and ML congruent? Why or why not? | 30. What are the lengths of GF and EF? |