



CHAPTER 10

CONIC SECTIONS

Cornell Notes/Summary Sheet

Name: \_\_\_\_\_

Period: \_\_\_\_\_

**Prior Knowledge**

**Your Notes**

- Distance formula
- Midpoint formula
- Pythagorean Theorem

**Lessons 10.1 – 10.3**

**Your Notes**

- Standard form equation of a circle
- Center & radius of a circle
- Translating circles
- Points on a circle
- Circles & tangents
- Circumference & area
- General form equation of a circle
- Completing the square

**Lessons 10.4 & 10.5**

**Your Notes**

- Parabolas
- Standard form equation of a vertical/horizontal parabola
- Center, directrix, & focus of a vertical/horizontal parabola
- General form equation of a parabola

VERTICAL, CENTER (0, 0)  EQUATION  DIRECTRIX  FOCUS	HORIZONTAL, CENTER (0,0)  EQUATION  DIRECTRIX  FOCUS
VERTICAL, CENTER (H, K)  EQUATION  DIRECTRIX  FOCUS	HORIZONTAL, CENTER (H, K)  EQUATION  DIRECTRIX  FOCUS

**Lesson 10.8**

**Your Notes**

- General conic form & the relationship between A & B for circles, parabolas, ellipses, and hyperbolas

<p style="text-align: center;"><b><u>Lesson 10.6</u></b></p> <ul style="list-style-type: none"> <li>• Ellipses</li> <li>• Standard form equation of a vertical/horizontal ellipse</li> <li>• Center, vertices, co-vertices, &amp; foci of a vertical/horizontal ellipse</li> <li>• Pythagorean relationship for an ellipse</li> <li>• General form equation of an ellipse</li> </ul>	<p style="text-align: center;"><b><u>Your Notes</u></b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; padding: 5px;">           VERTICAL, CENTER (0, 0)         </td> <td style="width: 50%; text-align: center; padding: 5px;">           HORIZONTAL, CENTER (0,0)         </td> </tr> <tr> <td style="text-align: center; padding: 5px;">EQUATION</td> <td style="text-align: center; padding: 5px;">EQUATION</td> </tr> <tr> <td style="text-align: center; padding: 5px;">VERTICES</td> <td style="text-align: center; padding: 5px;">VERTICES</td> </tr> <tr> <td style="text-align: center; padding: 5px;">CO-VERTICES</td> <td style="text-align: center; padding: 5px;">CO-VERTICES</td> </tr> <tr> <td style="text-align: center; padding: 5px;">FOCI</td> <td style="text-align: center; padding: 5px;">FOCI</td> </tr> <tr> <td style="text-align: center; padding: 5px;"> </td> <td style="text-align: center; padding: 5px;"> </td> </tr> <tr> <td style="text-align: center; padding: 5px;">           VERTICAL, CENTER (H, K)         </td> <td style="text-align: center; padding: 5px;">           HORIZONTAL, CENTER (H, K)         </td> </tr> <tr> <td style="text-align: center; padding: 5px;">EQUATION</td> <td style="text-align: center; padding: 5px;">EQUATION</td> </tr> <tr> <td style="text-align: center; padding: 5px;">VERTICES</td> <td style="text-align: center; padding: 5px;">VERTICES</td> </tr> <tr> <td style="text-align: center; padding: 5px;">CO-VERTICES</td> <td style="text-align: center; padding: 5px;">CO-VERTICES</td> </tr> <tr> <td style="text-align: center; padding: 5px;">FOCI</td> <td style="text-align: center; padding: 5px;">FOCI</td> </tr> </table>		VERTICAL, CENTER (0, 0)	HORIZONTAL, CENTER (0,0)	EQUATION	EQUATION	VERTICES	VERTICES	CO-VERTICES	CO-VERTICES	FOCI	FOCI			VERTICAL, CENTER (H, K)	HORIZONTAL, CENTER (H, K)	EQUATION	EQUATION	VERTICES	VERTICES	CO-VERTICES	CO-VERTICES	FOCI	FOCI
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<p style="text-align: center;"><b><u>Lesson 10.7</u></b></p> <ul style="list-style-type: none"> <li>• Hyperbola</li> <li>• Standard form equation of a vertical/horizontal hyperbola</li> <li>• Center, vertices, foci, and asymptotes of a vertical/horizontal hyperbola</li> <li>• Pythagorean relationship for a hyperbola</li> <li>• General form equation of a hyperbola</li> </ul>	<p style="text-align: center;"><b><u>Your Notes</u></b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; padding: 5px;">           VERTICAL, CENTER (0, 0)         </td> <td style="width: 50%; text-align: center; padding: 5px;">           HORIZONTAL, CENTER (0,0)         </td> </tr> <tr> <td style="text-align: center; padding: 5px;">EQUATION</td> <td style="text-align: center; padding: 5px;">EQUATION</td> </tr> <tr> <td style="text-align: center; padding: 5px;">VERTICES</td> <td style="text-align: center; padding: 5px;">VERTICES</td> </tr> <tr> <td style="text-align: center; padding: 5px;">FOCI</td> <td style="text-align: center; padding: 5px;">FOCI</td> </tr> <tr> <td style="text-align: center; padding: 5px;">ASYMPTOTE</td> <td style="text-align: center; padding: 5px;">ASYMPTOTE</td> </tr> <tr> <td style="text-align: center; padding: 5px;"> </td> <td style="text-align: center; padding: 5px;"> </td> </tr> <tr> <td style="text-align: center; padding: 5px;">           VERTICAL, CENTER (H, K)         </td> <td style="text-align: center; padding: 5px;">           HORIZONTAL, CENTER (H, K)         </td> </tr> <tr> <td style="text-align: center; padding: 5px;">EQUATION</td> <td style="text-align: center; padding: 5px;">EQUATION</td> </tr> <tr> <td style="text-align: center; padding: 5px;">VERTICES</td> <td style="text-align: center; padding: 5px;">VERTICES</td> </tr> <tr> <td style="text-align: center; padding: 5px;">FOCI</td> <td style="text-align: center; padding: 5px;">FOCI</td> </tr> <tr> <td style="text-align: center; padding: 5px;">ASYMPTOTE</td> <td style="text-align: center; padding: 5px;">ASYMPTOTE</td> </tr> </table>		VERTICAL, CENTER (0, 0)	HORIZONTAL, CENTER (0,0)	EQUATION	EQUATION	VERTICES	VERTICES	FOCI	FOCI	ASYMPTOTE	ASYMPTOTE			VERTICAL, CENTER (H, K)	HORIZONTAL, CENTER (H, K)	EQUATION	EQUATION	VERTICES	VERTICES	FOCI	FOCI	ASYMPTOTE	ASYMPTOTE
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