

1. Copy the standard form of the equation for the ellipse and the equation for hyperbola-x.
2. Compare and contrast the equations for an ellipse and the equation for hyperbola-x.
3. Copy the standard form of the 2 equations for the hyperbolas.
4. What is the difference in the 2 equations for the hyperbolas?
5. How are the graphs for these 2 equations different?
6. Copy the standard form of the 2 equations for the parabolas.
7. Compare and contrast the 2 equations for the parabolas.
8. How do the differences in these equations effect their graphs?
9. How can you make the ellipse change direction since there is only one equation for it?

10. What is the relationship between "a" and "b" if the ellipse is oriented horizontally?
11. What is the relationship between "a" and "b" if the ellipse is oriented vertically?
12. How can you make a circle?
13. What happens to the equation of the ellipse when the center is moved?
14. Does the same thing happen to the equation of hyperbola-x? hyperbola-y?
15. How does moving the center effect the equation for the parabola-y?
16. Does moving the center effect the equation for parabola-x in the same way? Explain.
17. How does altering the value of "a" change the graph of an ellipse with respect to the center? Does the same thing happen when you alter "b"?
18. How does altering "a" change the graph of hyperbola-x with respect to the center? Does the same thing happen when you alter "b"?
19. How does altering "a" change the graph of hyperbola-y with respect to the center? Does the same thing happen when you alter "b"?
20. Write a summary about what you now know about conic section equation and their graphs.