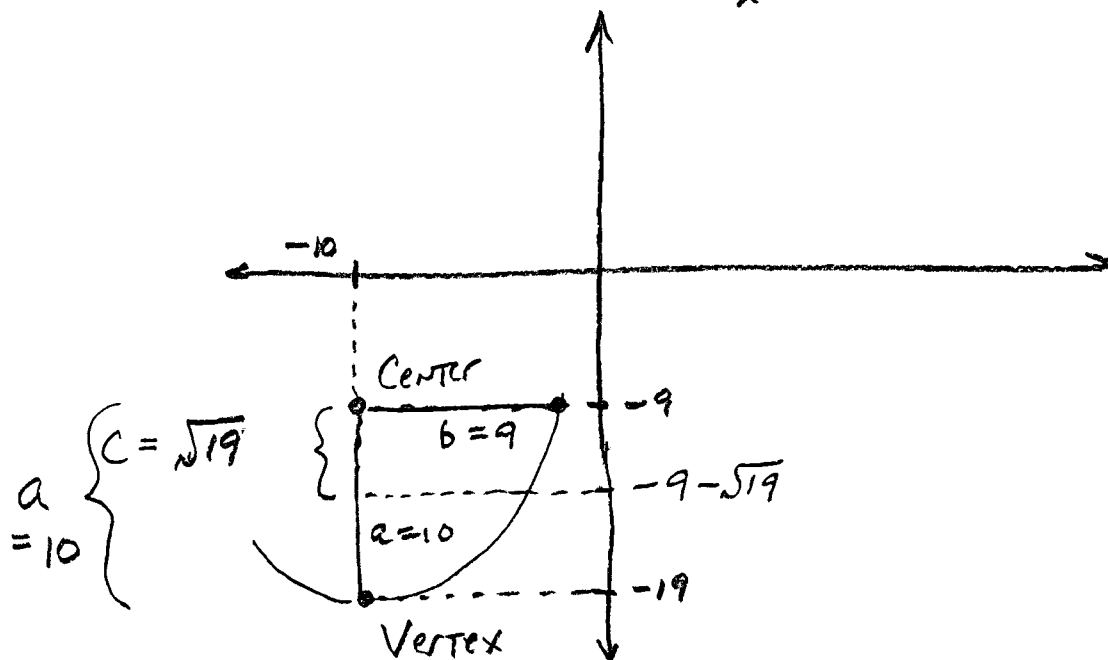


Algebra 2 THURSDAY 2-21-18 CLASS NOTES

③ WRITE THE EQUATION OF THE ELLIPSE
WORK-SHEET PRACTICE given: CENTER $(-10, -9)$, Vertex $(-10, -19)$
h, k
FOCUS $(-10, -9 - \sqrt{19})$
x



UP/DOWN ELLIPSE $a = 10$ $c = \sqrt{19}$

$$c^2 = a^2 - b^2 \quad \therefore b^2 = a^2 - c^2$$

$$b^2 = 10^2 - (\sqrt{19})^2 = 100 - 19 = 81$$

$$\therefore b = 9$$

$$\therefore \boxed{\frac{(x+10)^2}{81} + \frac{(y+9)^2}{100} = 1}$$