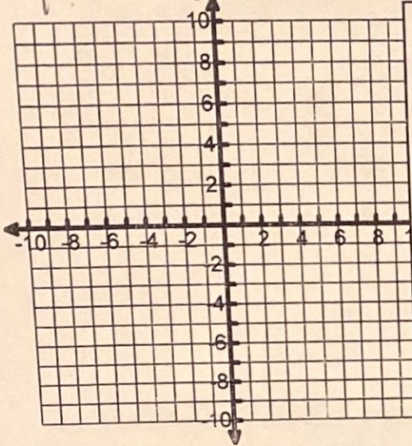


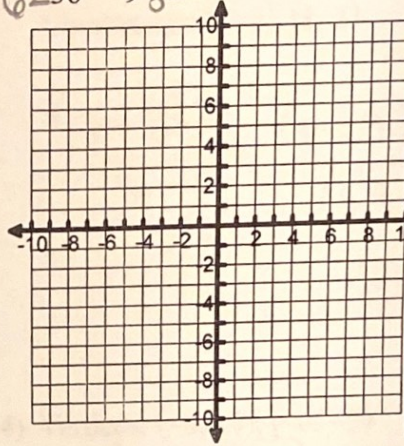
Identify the center, vertices, co-vertices, foci, length of major axis, length of minor axis. Then sketch the graph.

1. $\frac{x^2}{7^2 \cdot 49} + \frac{y^2}{25 \cdot 5^2} = 1$



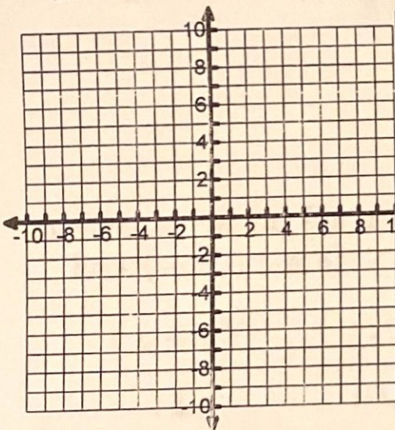
Center: $(0,0)$
 Vertices: $(7,0)(-7,0)$
 Co-vertices: $(0,5)(0,-5)$
 Foci: $\sqrt{24}$
 $(4.8,0)(-4.8,0)$
 Major: 14
 Minor: 10

2. $\frac{x^2}{6^2 \cdot 36} + \frac{y^2}{9 \cdot 3^2} = 1$



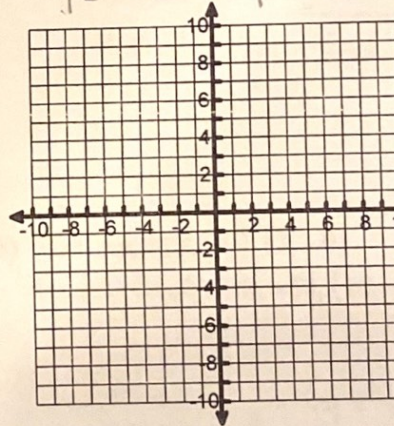
Center: $(0,0)$
 Vertices: $(6,0)(-6,0)$
 Co-vertices: $(0,3)(0,-3)$
 Foci: $\sqrt{27} = 5.19$
 $(5.1,0)(-5.1,0)$
 Major: 12
 Minor: 6

3. $\frac{(x+5)^2}{2^2 \cdot 4} + \frac{(y-1)^2}{25 \cdot 5^2} = 1$



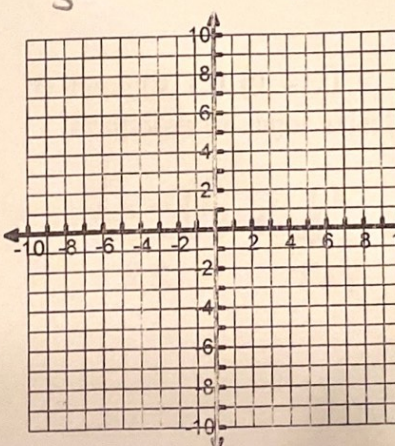
Center: $(-5,1)$
 Vertices: $(-5,1 \pm 5) = (-5,6)(-5,-4)$
 Co-vertices: $(-5 \pm 2, 1) = (-3,1)(-7,1)$
 Foci: $\sqrt{21} = 4.5$
 $(-5, 1 \pm 4.5)$
 Major: 10 = $2(5)$
 Minor: $2(2) = 4$

4. $\frac{(x-3)^2}{1^2 \cdot 16} + \frac{(y-2)^2}{4^2} = 1$



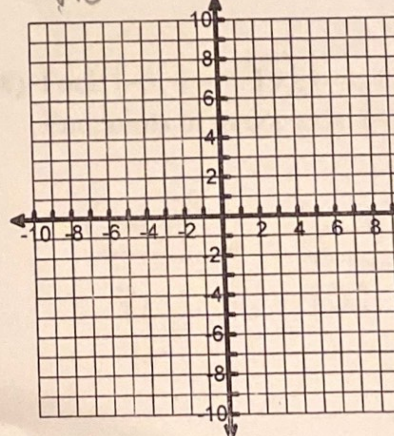
Center: $(3,2)$
 Vertices: $(3,2 \pm 4) = (3,6)(3,-2)$
 Co-vertices: $(4,2)(2,2)$
 Foci: $\sqrt{15}$
 $(3, 5.8)(3, -1.8)$
 Major: 8 = $2(4)$
 Minor: $2(1) = 2$

5. $\frac{(x+2)^2}{5^2 \cdot 25} + \frac{(y+1)^2}{9 \cdot 3^2} = 1$



Center: $(-2,-1)$
 Vertices: $(-7,1)(3,1)$
 Co-vertices: $(-2,-4)(-2,2)$
 Foci: 4
 $(2,1)(-6,-1)$
 Major: 10 = $2(5)$
 Minor: $2(3) = 6$

6. $\frac{(x-1)^2}{10 \cdot 100} + \frac{(y+3)^2}{49 \cdot 7^2} = 1$



Center: $(1,-3)$
 Vertices: $(1,-10)(1,4)$
 Co-vertices: $(4,-3)(-2,-3)$
 Foci: $\sqrt{39} = 6.2$
 $(1, -9.2)(1, -3.2)$
 Major: 14 = $2(7)$
 Minor: $2(3) = 6$