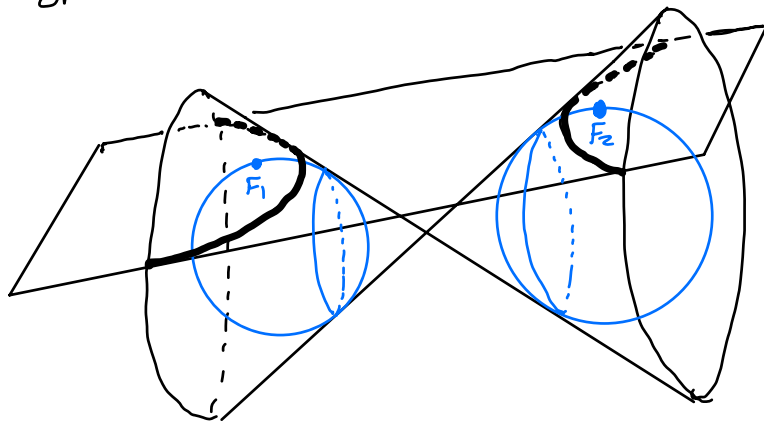1. Use the following picture to explain why the thickened conic curve is a hyperbola with foci F_1 and F_2.

2. Give a description of tangents to hyperbola. Then use it to show that if a ray l_1 passes through F_1 (after extension), then its reflection l_2 passes through F_2.