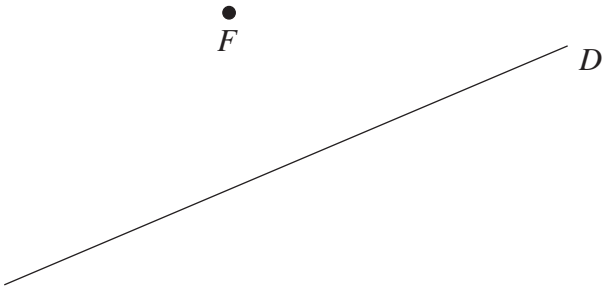
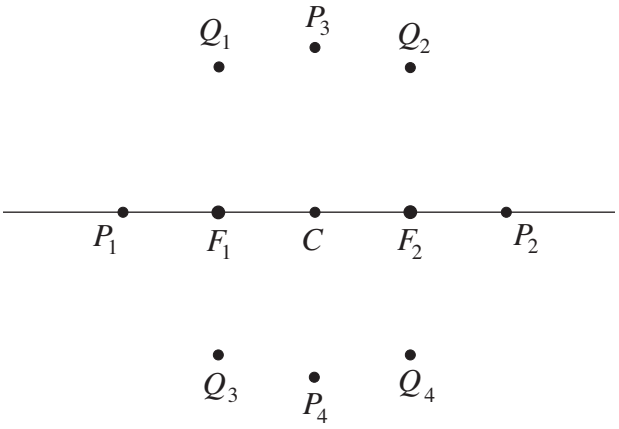
Quiz **Name**

1. In the space below draw a parabola that has focal point and directrix the given point F and line D.



2. Consider the ellipse with the property that the distance between its focal points F_1 and F_2 is 2 and its constant k is 4. In the figure below C is the center of the ellipse. The points P_1 and P_2 are on the ellipse and the focal axis. The points Q_1, Q_2, and P_3 have the property that the segments Q_1F_1, Q_2F_2, and P_3C are all perpendicular to the focal axis. (The points



Q_3, Q_4 and P_4 in the figure are the analogous points below the focal axis.) Find the distances between P_1 and F_1, Q_1 and F_1, and between P_3 and C. Draw the ellipse into the figure.