Quiz **Name**

1. Consider a parabola and let F be its focal point and D its directrix. Let P be any point on the parabola and choose the point C on D such that PC is perpendicular to D. Show that the triangle ΔFPC is isosceles.

2. Consider an ellipse and let F_1 and F_2 be its focal points. Let P be any point on the ellipse not on the focal axis and consider the triangle ΔPF_1F_2. Show that the circumference of this triangle is the same no matter where P is taken on the ellipse.