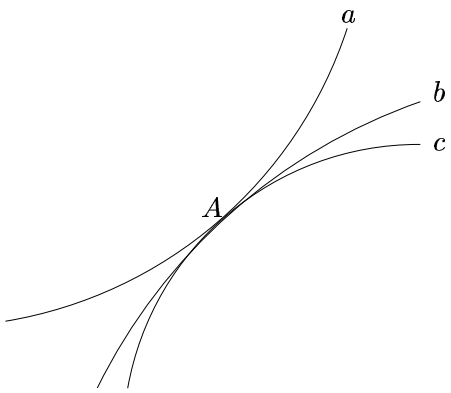
3. (10 points) Three functions f_1, f_2, and f_3, have graphs that pass through a point A and are shown in the figure. Second degree Taylor polynomials for these functions are as follows:

$$\begin{aligned} f_1(x) &\approx 10 + (x-5) - (x-5)^2 \\ f_2(x) &\approx 10 + (x-5) + (x-5)^2 \\ f_3(x) &\approx 10 + (x-5) - 5(x-5)^2 \end{aligned}$$



(a) What are the coordinates of the point A?

(b) Which function goes with which graph? Explain how can you tell?