

67 (a) Since the units are in thousands, the number of subscribers exceeded 2 million when

$$163x^2 - 146x + 205 > 2000$$
$$\Rightarrow 163x^2 - 146x - 1795 > 0$$

(b) Graph $Y_1 = 163x^2 - 146x - 1795$. Estimate the x -values where Y_1 is positive.

From *Figure 67*, it can be seen that $Y_1 > 0$ when $x > k$, where $k \approx 3.796$. This corresponds to 1989 or later.

$[0, 6, 1]$ by $[-2000, 2000, 1000]$

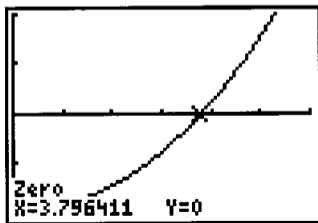


Figure 67