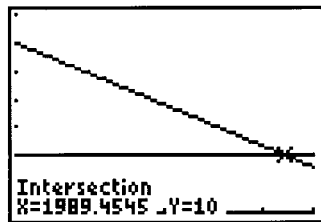


- 45 (a) Since the line passes through the points (1984, 30) and (1990, 8), the slope of the line is  $m = \frac{8 - 30}{1990 - 1984} = -\frac{11}{3}$ . Thus,  $y_1 = -\frac{11}{3}(x - 1984) + 30$ .
- (b) Graph  $y_1$  and  $y_2 = 10$  as shown in *Figure 45*. Their graphs intersect near the point (1989.45, 10). Thus, the murder rate in prisons was first less than the rate for all Americans when  $x \approx 1989.45$  or during the year 1989.

[1984, 1990, 1] by [0, 35, 5]



*Figure 45*