35 (a) *Figure 35a* shows the data. It appears to be linear. As the speed increases, so does the minimum passing sight distance.

[15, 75, 5] by [500, 2800, 100]

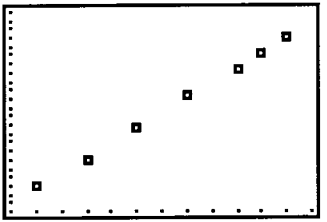

Figure 35a

[15, 75, 5] by [500, 2800, 100]

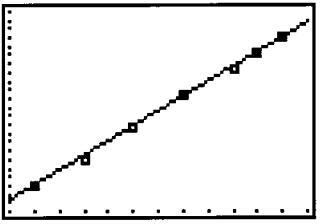

Figure 35b

(b) Since the data appears linear, a linear polynomial would model this data. Let $D(x) = m(x-h)+k$. Start by letting $(h,\ k) = (20,\ 810)$ and adjusting the slope until a visually pleasing fit is found. *Figure 35b* shows the fit with a value of $m \approx 34$. Let $D(x) = 34(x-20)+810$ or $D(x) = 34x+130$ *Answers may vary.*

(c) The minimum passing distance at 43 miles per hour would be $D(43) = 34(43-20)+810 = 1592$ feet. *Answers may vary slightly.*