3) A parabolic arc with a vertical focal axis has wideness in its base of 40ft and a height to its center of 15ft. Determine the equation of the arc, assuming that its vertex is at the origin.

$$20^2 = 4p(-15)$$

$$\frac{400}{-15} = 4p$$

$$\frac{\frac{400}{-15}}{4} = p \qquad \underline{P = 26.67}$$

$$\underline{x^2 = -26.67\,y}$$