

**15** Let the equation of the parabola be  $y = ax^2$ . Since 9 inches is equal to 0.75 foot, this parabola must pass through the point  $(3, 0.75)$ . Thus,  $0.75 = a(3)^2 \Rightarrow a = \frac{75}{900} = \frac{1}{12}$ . The equation of this parabola can be written as  $y = \frac{1}{12}x^2$  or  $x^2 = 12y$ .  $4p = 12 \Rightarrow p = 3$  feet.