b) Common sense domain is $[0, 10560 \text{ ft}]$
   - include $x = 0$; that means cable goes straight across.
   - include $x = 10560$; that means go straight to Dayton.
   - $x < 0$ is legal, but weird to go away from Dayton.
   - $x > 10560$ also legal, but weird to go past Dayton.

c) Cost is $C = 180 \cdot d_1 + 100 \cdot d_2$
   
   $C(x) = 180 \sqrt{800^2 + x^2} + 100 \cdot (10560 - x)$

d) $C$ (million $\text{\$}$) vs. $x$ (ft)