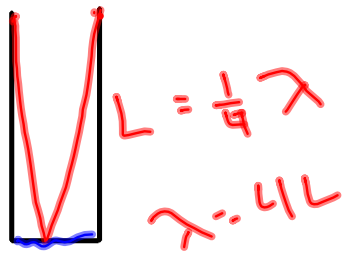

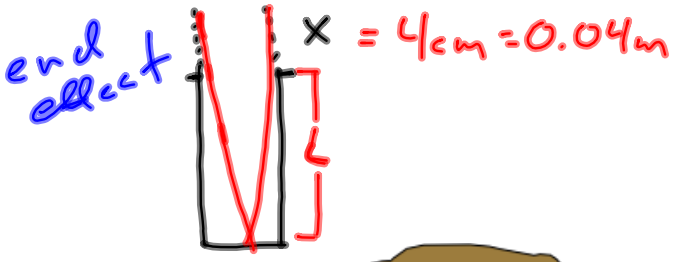

$\frac{1}{4}\lambda = L + x$

$\lambda_{real} = (L + x) \cdot 4$

$\lambda_{real} = 4L + 4x$

$\lambda_{real} = \lambda_{measured} + 4x$

$\frac{v}{f} = \lambda_{measured} + 4x$

$\lambda_{measured} = \frac{v}{f} - 4x$

Our actual length is 4cm (0.04m) longer then the measured length of the pipe. To compensate for that, calculate your wavelength as usual. When you graph select the inverse relationship but then define the function as seen below. C should be 4 times the end effect (4cm or 0.04m). For your max and min values change the A value.

$\lambda = A/f - C$ ⇝ $4x = 4(.04)$