Using equation 1 on page 32

i.e.:

$$x' = \frac{x - vt}{\sqrt{1 - \frac{v^2}{c^2}}}$$

When $x = 0$,

$$x'_0 = \frac{0 - vt}{\sqrt{1 - \frac{v^2}{c^2}}} = \frac{-vt}{\sqrt{1 - \frac{v^2}{c^2}}}$$

When $x = 1$

$$x'_1 = \frac{1 - vt}{\sqrt{1 - \frac{v^2}{c^2}}}$$

Length of metre rod in respect to K'

$$= x'_1 - x'_0$$

$$= \frac{1 - vt}{\sqrt{1 - \frac{v^2}{c^2}}} - \frac{-vt}{\sqrt{1 - \frac{v^2}{c^2}}}$$

$$= \frac{1 - vt + vt}{\sqrt{1 - \frac{v^2}{c^2}}} = \frac{1}{\sqrt{1 - \frac{v^2}{c^2}}}$$

✓ ?