P. #43

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$l = 4.00\ m$
$m = .200\ kg$
$t = .800\ sec$

$d = 4 \times 2 \times l$
$= 8 \cdot (4.00\ m)$
$d = 32\ m$

$\mu = \frac{.200\ kg}{4.0\ m} = .05\ kg/m$

$v = \frac{d}{t}$ and $v = \sqrt{\frac{F}{\mu}}$

$\frac{d}{t} = \sqrt{\frac{F}{\mu}}$

$\frac{32\ m}{.800\ sec} = \sqrt{\frac{F}{.05\ kg/m}}$

$\boxed{F = 80\ N}$