

14. (a) Comparing with Eq. 17-2, we see that $k = 20/\text{m}$ and $\omega = 600/\text{s}$. Therefore, the speed of the wave is (see Eq. 17-12) $v = \omega/k = 30 \text{ m/s}$.
- (b) From Eq. 17-25, we find

$$\mu = \frac{\tau}{v^2} = \frac{15}{30^2} = 0.017 \text{ kg/m} = 17 \text{ g/m} .$$