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Transverse waves with a speed of 50 m/s are to be produced on a taut string. A 5.0 m length of string with a total mass of 0.060 kg is used. What is the required tension?

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For a certain wave, the distance between two successive maxima is 1.2 m and eight maxima pass a given point along the direction of travel every 12 seconds. Calculate the wave speed.

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A transverse sinusoidal wave on a string has a period  $T = 25$  ms and travels in the negative  $x$  direction (i.e. to the left) with a speed of 30.0 m/s. At  $t = 0$ , a particle on the string at  $x = 0$  has a displacement of 2.00 cm and is moving downward with a speed of 2 m/s.

- a- What is the amplitude of the wave?
- b- What is the initial phase angle?
- c- What is the maximum transverse speed of the string?
- d- Write the wave function for the wave.