## Problems of the Week 5

Always show your work to receive credit (NO WORK=NO CREDIT)

1. A string consists of two parts attached at $x=0$. The right part of the string has mass per unit length $\mathbf{1 2 . 8} \mathbf{~ g} / \mathrm{m}$ and the left part has mass per unit length $\mathbf{3 . 2 g} / \mathrm{m}$. The string tension is $T$. If a wave of amplitude 3.5 cm travels along the left part of the string, what is the amplitude of the wave that is transmitted to the right part of the string ( 1 point)?
A. 0.26 cm
B. 1.4 cm
C. 2.3 cm
D. 3.0 cm
E. 5.2 cm

