

PHY121 Summer 2018

Pre-work for Monday 6/11

1. Describe (qualitatively) the difference between transverse and longitudinal waves.
2. Rank the following waves according to their wave speed, from highest to lowest. Then rank them according to the maximum transverse speed.
 - (a) $y(x, t) = 2 \sin(4x - 2t)$
 - (b) $y(x, t) = \sin(3x - 4t)$
 - (c) $y(x, t) = 2 \sin(3x - 3t)$
3. If you increase the frequency of a wave, what happens to the speed of the wave? What happens to the wavelength?