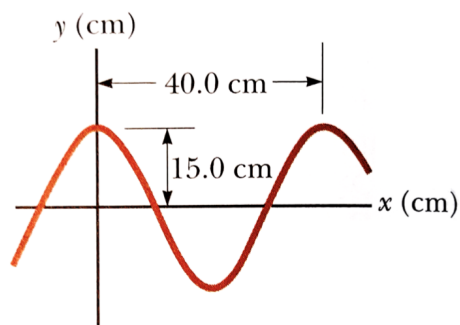


Javier Duarte, Department of Physics  
University of California San Diego  
Physics 2C, Winter 2020

**Reading Assignment due Friday 1/10:** Submit via Gradescope by 8:00am

1. Suppose you're given a plot of  $y$  vs.  $x$  as below:



- (a) What kind of wave (transverse or longitudinal) is this most likely? Why?
  - (b) Which of the following can you get from this graph alone: wave speed, maximum particle speed, wavenumber, and angular frequency? Solve for the numerical value of any quantity you can get from the above graph.
  - (c) Explain the difference between “wave speed” and “maximum particle speed” in words/pictures.
2. “Stop to Think 16.1” on page 423 of your textbook. Also, for situation (a), describe what happens to the speed of the wave, the frequency, and the wavelength when you start moving your hand up and down at a faster rate.

---

**For extra practice (not due):** From Chapter 16 of Knight, 4th edition: Conceptual Questions: 1-7. Exercises: 2, 3, 6, 10, 12, 14.