

66. It is certainly possible to simplify (in the trigonometric sense) the expressions at $x = 3$ m (since $k = 1/2$ in inverse-meters), but there is no particular need to do so, if the goal is to plot the time-dependence of the wave superposition at this value of x . Still, it is worth mentioning the end result of such simplification if it provides some insight into the nature of the graph (shown below): $y_1 + y_2 = (0.10 \text{ m}) \sin(40\pi t)$ with t in seconds.

