

**2021A12****(PROPORTIONS, RATES)**

**Level 1:** We start by determining the height the bottom rim of the Lower Mid needs to reach.

$$\text{Base height (ft)} + \text{Additional Clearance (ft)} = \text{Necessary Height (ft)}$$

$$39.5 \text{ ft} + 5 \text{ ft} = 44.5 \text{ ft}$$

Because we know that the Lower Mid still has to be lifted  $\frac{3}{4}$  of this distance, it is already  $\frac{1}{4}$  of the distance off the ground.

$$\text{Necessary Height (ft)} * \frac{1}{4} = \text{Current Height (ft)}$$

$$44.5 \text{ ft} * \frac{1}{4} = 11.125 \text{ ft}$$

**Level 2:** First, determine how many feet the Lower Mid still needs to be raised.

$$\text{Necessary Height (ft)} * \frac{3}{4} = \text{Remaining Height (ft)}$$

$$44.5 \text{ ft} * \frac{3}{4} = 33.375 \text{ ft}$$

Then divide by the rate of movement to determine the time the lift will take.

$$\frac{\text{Remaining Height (ft)}}{\text{Lift Rate ft/min}} = \text{Time (min)}$$

$$\frac{33.375 \text{ ft}}{2.5 \text{ ft/min}} = 13.35 \text{ min}$$

# WIND STUDY

Wind Study is intended for grades 5-8 and 8-11  
Questions posted on: Monday    Answers posted on: Friday  
Find downloadable one-pagers at [www.oneenergy.com/one-energy-feed](http://www.oneenergy.com/one-energy-feed)

*A Base section being installed.*

