

Date _____

Solve each problem by using at least 2 different representations.

1. The air temperature in the atmosphere decreases at the rate of 9°C every 300 meters. At what height would a rocket have to fly to experience a temperature of -81°C ? Assume the temperature is 0°C at sea level.
2. A theater holds 294 seats. At the end of its sold-out performance, viewers left the theater at a rate of 7 people per minute. After how many minutes would the theater be at $\frac{1}{3}$ its capacity?
3. In a well there are 800 liters of water. At the top there is a pipe that deposits 25 liters per minute into the well, and at the bottom there is another pipe which withdraws 30 liters per minute from the same well. How many liters of water will there be in the well after 6 minutes of the pipes functioning.