

Questions:

1. What did you further learn about cloud droplet growth by diffusion by completing the activity?
2. In fig.1 the first three curves of initial radii of cloud droplet coincides together. Explain?
3. Find the time required for the cloud droplet to grow to $50\ \mu\text{m}$ at $T=0\ ^\circ\text{C}$ (use fig. 2) and $SS=1.02$. Compare your results to find which case requires longer time and why?
4. Fig 1. Shows that it would take around 900 min (15 hours) to grow the droplets to the size of a typical cloud droplet ($50\ \mu\text{m}$) and around 3000 min (about 2 days) to grow to a precipitation size ($100\ \mu\text{m}$). Do you think diffusional growth can produce precipitation? Why?
5. Derive equation (4).