1. (1 point) Describe the lifecycle of a single cell thunderstorm.

2. (1 point) Describe how a thunderstorm gust front forms.

3. (1 point) Below each radar image, please identify the corresponding thunderstorm type it represents (squall line, MCC, single cell thunderstorms or bow echo).
4. (2 points) The following two images are radar plots from two different storms.

a. Which storm system is producing more severe weather events?
b. Below are two soundings. Which sounding is more representative of each image? Hint: notice the lower level winds and think of how these relate to storm development.

5. (1 point) What other process does hail aid in a thunderstorm? Describe this.

6. (1 point) What role does shear play in thunderstorm development?
7. (1 point) What is thunder?

8. (2 points) Consider the formation of a tornado.
   a. Why are updrafts important in this process?
   b. How does the intense rotation form?