

Take Test: Homework #4, due Sun. 4/19

Test Information

Description	Homework covering topics from the reading and lectures about thunderstorms and their hazards. Due 11:59pm Sunday 4/19.
Instructions	Answer the questions to the best of your abilities. You may work together, but you must write the answers in your own words. Save your answers as you go. Submit before 11:59pm Sunday 4/19.
Multiple Attempts	This test allows multiple attempts.
Force Completion	This test can be saved and resumed later. Your answers are saved automatically.

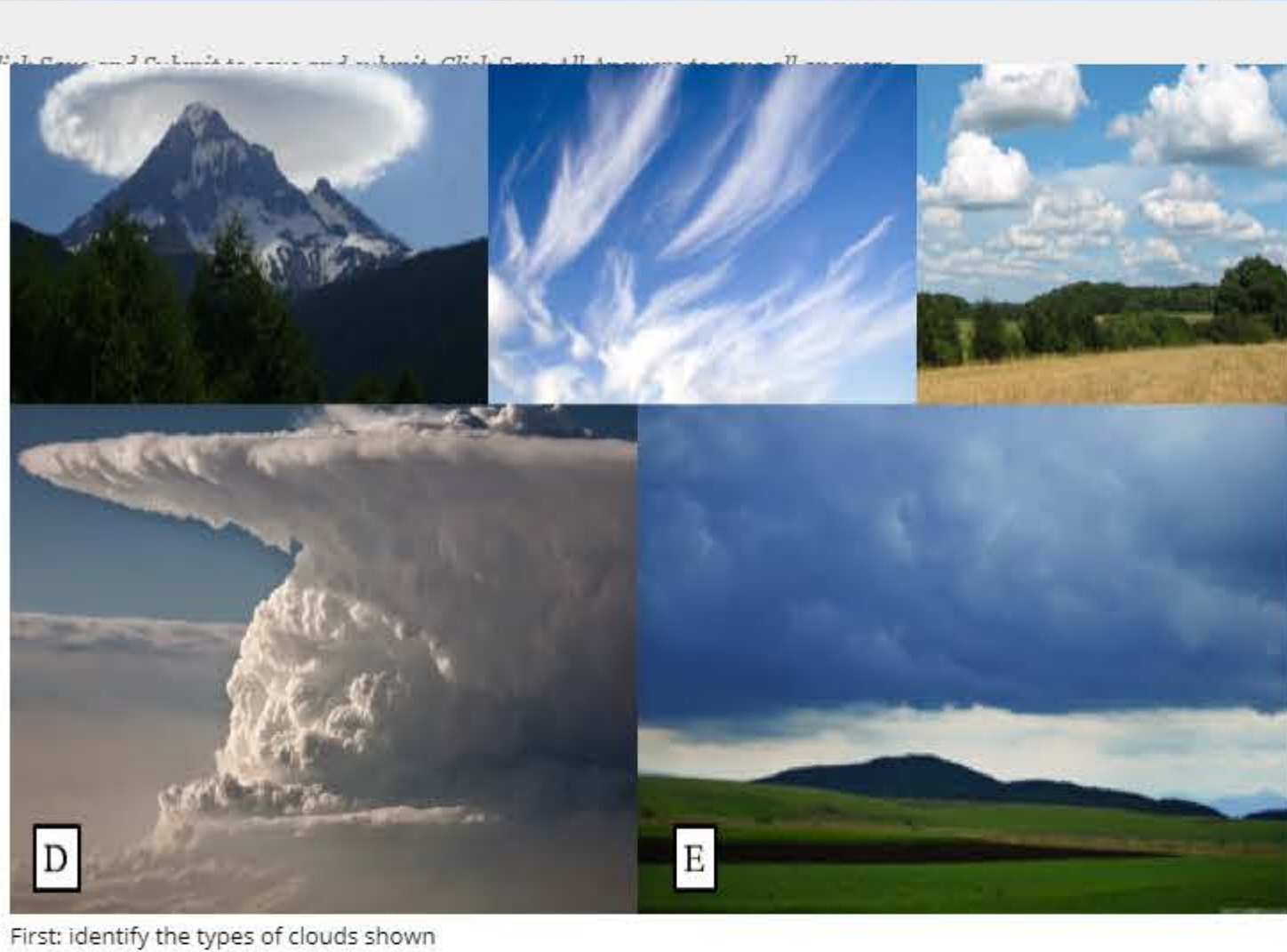
Question Completion Status:

QUESTION 1

10 points Save Answer

Part I: Cloud Identification and Properties

Answer the questions in the this section using the following figure showing 5 kinds of clouds:



First: identify the types of clouds shown

Cloud A is

Cloud B is

Cloud C is

Cloud D is

Cloud E is

QUESTION 2

8 points Save Answer

Which of the clouds shown have liquid water drops in them?

- ☐ A
- ☐ B
- ☐ C
- ☐ D
- ☐ E

QUESTION 3

8 points Save Answer

Which of the clouds shown above have ice crystals in them? Choose all that apply.

- ☐ B
- ☐ E
- ☐ D
- ☐ C
- ☐ A

QUESTION 4

5 points Save Answer

Which cloud type is most likely associated with hazardous weather?

- ☐ A
- ☐ B
- ☐ C
- ☐ D
- ☐ E

QUESTION 5

5 points Save Answer

Part II: Thunderstorms

As a thunderstorm grows, air from outside the cloud gets mixed into the cloud. What is this process called?

- ☐ Entrainment
- ☐ Overshooting
- ☐ Downdrafts
- ☐ Precipitation

QUESTION 6

5 points Save Answer

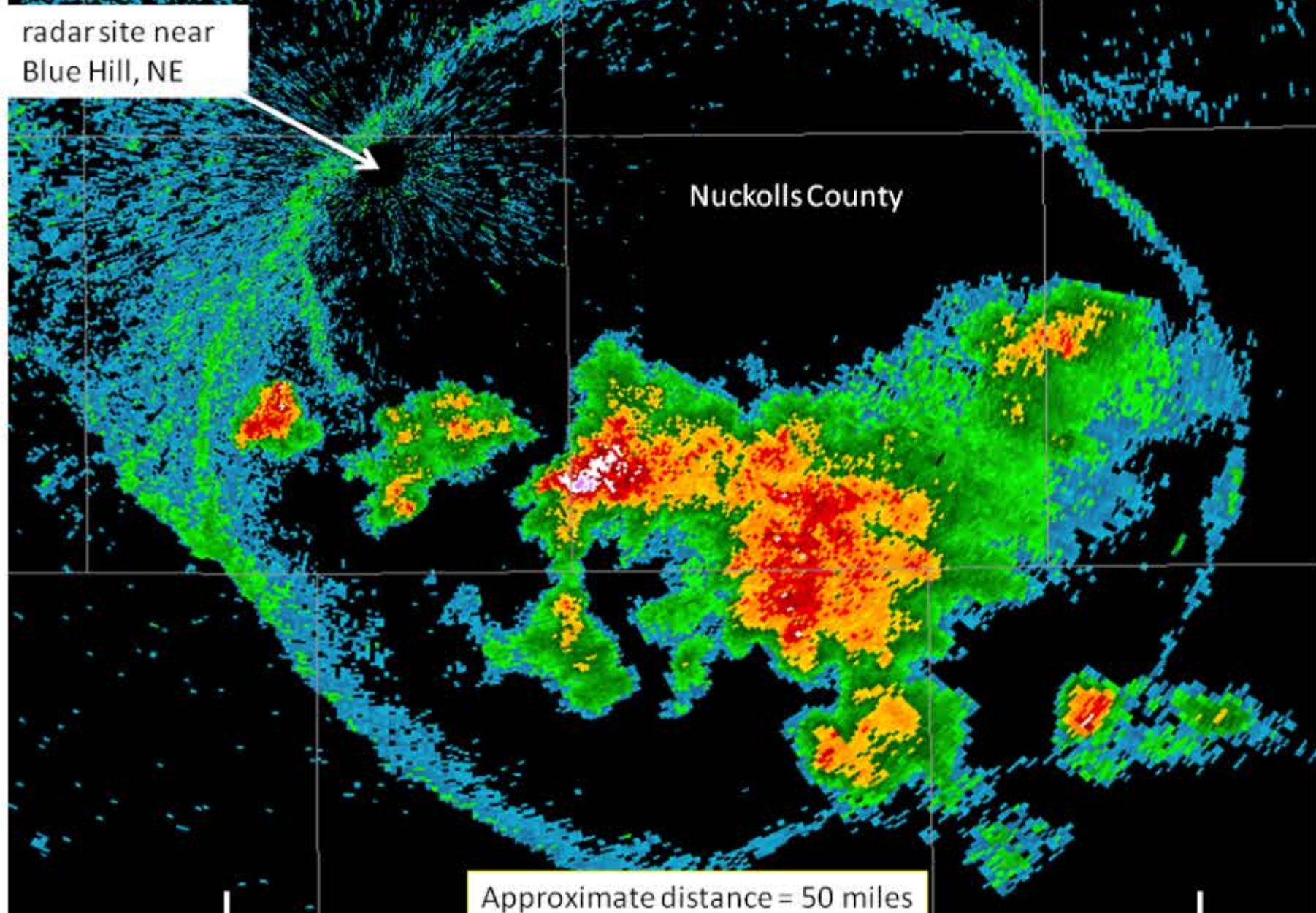
Mixing unsaturated air into a cloud causes which of the following?

- ☐ Condensation and warming
- ☐ Evaporation and cooling
- ☐ Condensation and cooling
- ☐ Evaporation and warming

QUESTION 7

5 points Save Answer

What do we call the circular feature on this radar image that is approximately 50 miles across ?



- ☐ Mesocyclone
- ☐ Gust front
- ☐ Stepped leader
- ☐ Supercell

QUESTION 8

7 points Save Answer

In the radar map above, would you expect the surface air temperature be warmer just inside or just outside the circular feature? Why?

Path: p Words:0

QUESTION 9

7 points Save Answer

Explain in a couple sentences how the mixing in of dry air leads to the end of an ordinary thunderstorm

Path: p Words:0

QUESTION 10

7 points Save Answer

What kind of environmental conditions allows a thunderstorm to live longer than an ordinary thunderstorm?

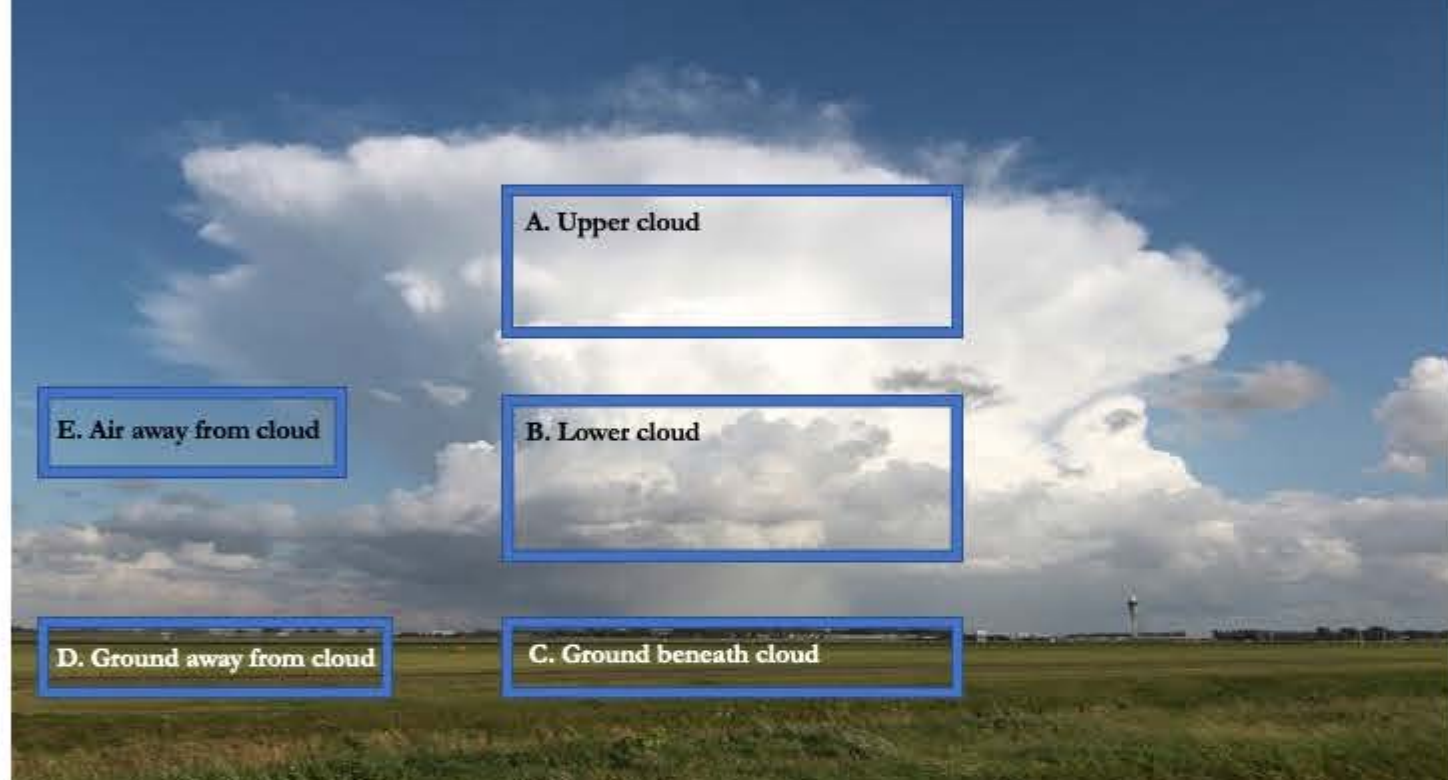
Path: p Words:0

QUESTION 11

8 points Save Answer

Part III: Hazards

The next set of questions refer to the following diagram:



Which parts of the scene above will be negatively charged? Choose all that apply

- ☐ D
- ☐ E
- ☐ B
- ☐ A
- ☐ C

QUESTION 12

8 points Save Answer

Lightning can occur in different locations relative to the storm cloud. Which regions could lightning occur between? Choose all that are correct.

- ☐ A and B
- ☐ A and C
- ☐ A and D
- ☐ A and E
- ☐ B and C
- ☐ B and D
- ☐ B and E
- ☐ C and D
- ☐ C and E
- ☐ D and E

QUESTION 13

5 points Save Answer

If you can hear thunder you are close enough to be hit by lightning

- ☐ True
- ☐ False

QUESTION 14

7 points Save Answer

Many clouds rain, but only some raining clouds produce lightning. What is the key characteristic of some clouds that allows them to build up the charge necessary for lightning?

Path: p Words:0

QUESTION 15

5 points Save Answer

A hailstone with multiple layers inside it indicates what?

- ☐ The hailstone was carried through the cloud multiple times
- ☐ The temperature in the cloud was below freezing
- ☐ The hailstone came from a thunderstorm that produced a tornado
- ☐ The cloud had an especially large amount of water in it