

Weather Map Activity Questions

Use the given figures answer the following questions:

1. What five weather related actions are happening in Wisconsin?
2. Which states, in the Northwest region, are mostly encompassed by an area of high pressure (H)?
3. Where is there light drizzle?
4. Canada has 9/10 cloud cover. Why?
5. What three states have 2/10 cloud cover?
 - a.
 - b.
 - c.
6. What is the symbol for a thunderstorm?
7. What is the cloud symbol for a thunderstorm?
8. What is the wind speed in Nevada?
9. What kinds of cloud are found in South Carolina?
10. What is the symbol for a tornado?

Figure B-5 Weather Map

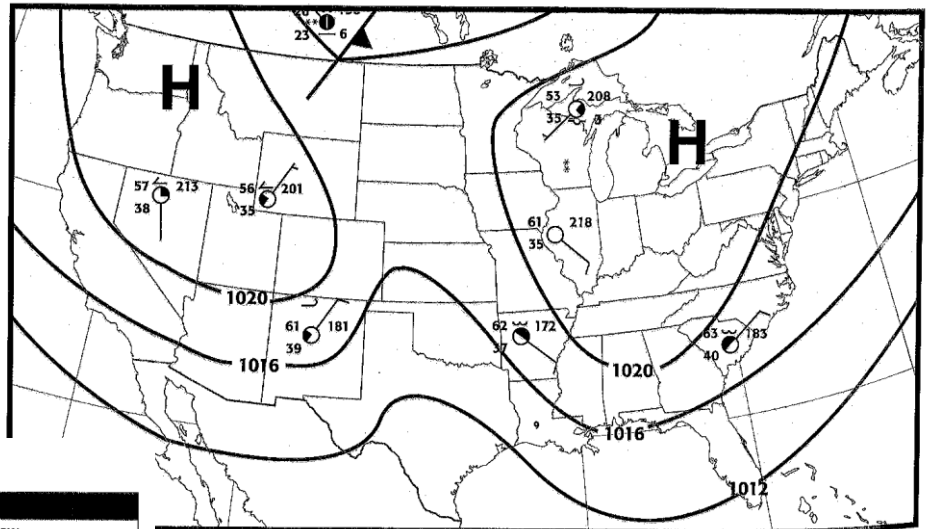


Table B-4 International Weather Symbols

Current Weather							
Hail		Light drizzle		Light rain		Light snow	
Freezing rain		Steady, light drizzle		Steady, light rain		Steady, light snow	
Smoke		Intermittent, moderate drizzle		Intermittent, moderate rain		Intermittent, moderate snow	
Tornado		Steady, moderate drizzle		Steady, moderate rain		Steady, moderate snow	
Dust storms		Intermittent, heavy drizzle		Intermittent, heavy rain		Intermittent, heavy snow	
Fog		Steady, heavy drizzle		Steady, heavy rain		Steady, heavy snow	
Thunderstorm							
Lightning							
Hurricane							
Sky Coverage							
No clouds		Two- to three-tenths covered		Half covered		Nine-tenths covered	
One-tenth Coverage		Four-tenths covered		Six-tenths covered		Completely overcast	
Clouds							
Low	Stratus		Cumulus		Cumulonimbus calvus		
	Stratocumulus		Cumulus congestus		Cumulonimbus with anvil		
Middle	Altostratus		Alto cumulus		Alto cumulus castellanus		
High	Cirrus		Cirrostratus		Cirrocumulus		
Wind Speed (in km/h)							
Calm		4-13		24-33			
1-3		14-23		34-40			

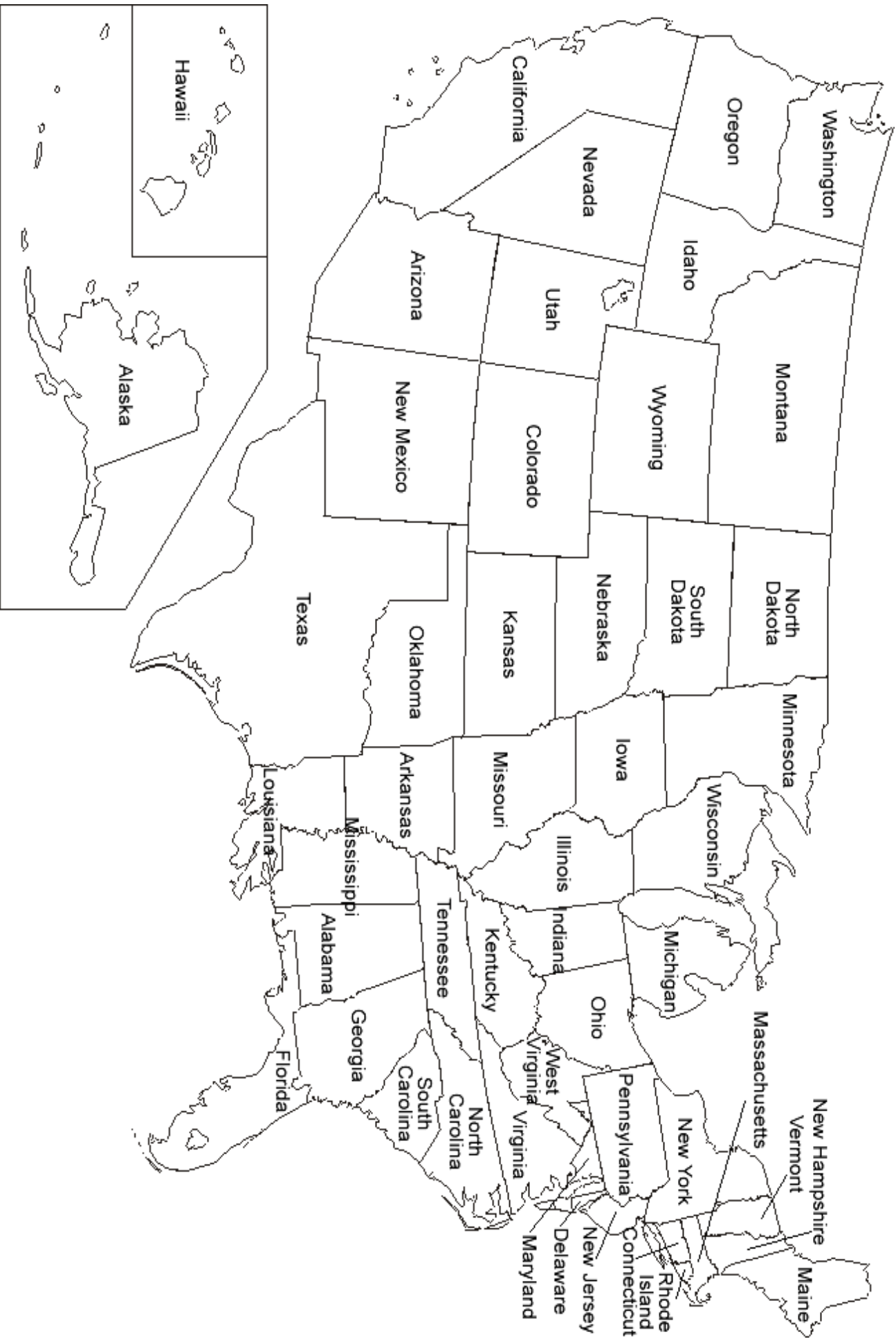
Use the symbol sheet to decode the following weather scenario.

There is a cold front heading our way which is likely to bring us steady heavy rain and snow as well as some possible light freezing rain. We are sitting in a low pressure zone with calm winds at 5 knots. Sky will be 9/10ths covered with stratus and thick altostratus clouds. Right now we are experiencing fog in patches and steady moderate drizzle.

- | | | | | |
|----|----|----|----|-----|
| 1. | 2. | 3. | 4. | 5. |
| 6. | 7. | 8. | 9. | 10. |

On the given map of the United States and using the weather map symbol page, draw the following using **color**.

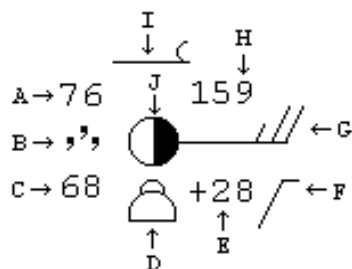
1. A **cold front** starting in upper Washington and ending in central California.
2. A **high pressure** area in Utah.
3. **Moderate rain** over Ohio
4. **Heavy drizzle** over Indiana.
5. A **warm front** starting in Eastern Texas crossing Oklahoma, Kansas and ending in central Iowa.
6. **Mild Rain Thunderstorms** on the **coast** of Louisiana.
7. **Heavy snow** in all of Maine.
8. An area of **low pressure** in Arkansas.
9. **Wind speeds of 20 knots** and **½ cloud cover** in Nevada, Tennessee and Minnesota.
10. **Completely overcast** in Eastern Oregon.
11. **Cumulonimbus clouds** in middle Mississippi.
12. **Smoke** over in Southern California due to wildfires.
13. **Stationary front** from Vermont to Pennsylvania.
14. **Stratocumulus clouds** in Nebraska.
15. **Moderate/Heavy snow showers** in Alaska.
16. **No clouds** on the big island of Hawaii.
17. **Scattered cirrus** on Maui.
18. **Wind is 50 knots** on the South Carolina coast.
19. **Hail** in Kansas.
20. **Fractostratus clouds** in Wyoming.
21. **Haze** all over Arizona.
22. **Drifting snow** in Michigan.
23. **Occluded front** from central Idaho to eastern Montana.
24. **Increase in Air pressure (rising then steady) over the last 3 hours** in central Florida.
25. **Heavy altocumulus clouds** in Georgia.
26. **Dust and Sand** on the eastern border of New Mexico.
27. **Tornados** in Missouri.
28. **Severe Hail Thunderstorms** in Wisconsin.
29. **Heavy Cirrostratus clouds** on the southern tip of Texas.
30. **Snow grains** in South Dakota.



Weather Station Symbols

<p>Cloud Coverage</p> <ul style="list-style-type: none"> No Clouds 1/10 1/4 1/2 3/4 9/10 Completely Overcast Sky Obscured 	<p>Wind Speed</p> <ul style="list-style-type: none"> Calm < 5 knots 5 knots 10 knots 20 knots 25 knots 50 knots 	<p>Cloud Types</p> <p>High Elevation</p> <ul style="list-style-type: none"> Scattered Cirrus Dense Cirrus Cirrostratus Heavy Cirrostratus Cirrus & Cirrostratus <p>Middle Elevation</p> <ul style="list-style-type: none"> Thin Altostratus Thick Altostratus Thin Altostratus Heavy Altostratus <p>Low Elevation</p> <ul style="list-style-type: none"> Stratocumulus Fair Weather Cumulus Developing Cumulus Cumulonimbus Cirrocumulus Nimbostratus Stratus Fractostratus 	<p>Weather Conditions</p> <p>INTERMITTENT</p> <table border="1"> <tr> <td></td> <td>Light</td> <td>Moderate</td> <td>Heavy</td> </tr> <tr> <td>Rain</td> <td>•</td> <td>••</td> <td>•••</td> </tr> <tr> <td>Snow</td> <td>*</td> <td>**</td> <td>***</td> </tr> <tr> <td>Drizzle</td> <td>,</td> <td>;</td> <td>;</td> </tr> </table> <p>STEADY</p> <table border="1"> <tr> <td></td> <td>Light</td> <td>Moderate</td> <td>Heavy</td> </tr> <tr> <td>Rain</td> <td>••</td> <td>•••</td> <td>••••</td> </tr> <tr> <td>Snow</td> <td>**</td> <td>**</td> <td>**</td> </tr> <tr> <td>Drizzle</td> <td>”</td> <td>”</td> <td>”</td> </tr> </table> <p>THUNDERSTORMS</p> <table border="1"> <tr> <td></td> <td>Mild</td> <td>Moderate</td> <td>Severe</td> </tr> <tr> <td>Rain</td> <td>⚡</td> <td>⚡</td> <td>⚡</td> </tr> <tr> <td>Snow</td> <td>*⚡</td> <td>*⚡</td> <td>*⚡</td> </tr> <tr> <td>Hail</td> <td>⚡</td> <td>⚡</td> <td>⚡</td> </tr> </table> <p> △ Hail Freezing Drizzle ☁ Snow Grains Light Heavy ⚡ Tornado ⚡ ↔ Ice Crystals Freezing Rain ↓ Drifting Snow Light Heavy </p>		Light	Moderate	Heavy	Rain	•	••	•••	Snow	*	**	***	Drizzle	,	;	;		Light	Moderate	Heavy	Rain	••	•••	••••	Snow	**	**	**	Drizzle	”	”	”		Mild	Moderate	Severe	Rain	⚡	⚡	⚡	Snow	*⚡	*⚡	*⚡	Hail	⚡	⚡	⚡
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<p>Wind Direction</p> <p>Wind comes FROM the direction of the arrow.</p>	<p>Fronts</p> <ul style="list-style-type: none"> Warm Cold Stationary Occluded Warm (Aloft) Cold (Aloft) 	<p>MISC. SKY COVER</p> <ul style="list-style-type: none"> Haze Smoke Dust/Sand Fog in Patches Light Fog Heavy Fog 	<p>SHOWERS</p> <ul style="list-style-type: none"> Slight Rain Moderate/Heavy Rain Violent Rain Sleet/Hail Slight Snow Moderate/Heavy Snow 																																																
<p>Barometric Tendency</p> <table border="1"> <tr> <td colspan="4">Increase in Air Pressure over Last 3 Hours</td> <td colspan="5">Decrease in Air Pressure over last 3 Hours</td> </tr> <tr> <td>↗</td> <td>↗</td> <td>↘</td> <td>↘</td> <td>—</td> <td>↘</td> <td>↘</td> <td>↘</td> <td>↗</td> </tr> <tr> <td>Rising, then Falling</td> <td>Rising, then Steady</td> <td>Rising Steadily</td> <td>Falling, then Rising</td> <td>Steady</td> <td>Falling, then Rising</td> <td>Falling, then Steady</td> <td>Falling Steadily</td> <td>Rising, then Falling</td> </tr> </table>				Increase in Air Pressure over Last 3 Hours				Decrease in Air Pressure over last 3 Hours					↗	↗	↘	↘	—	↘	↘	↘	↗	Rising, then Falling	Rising, then Steady	Rising Steadily	Falling, then Rising	Steady	Falling, then Rising	Falling, then Steady	Falling Steadily	Rising, then Falling																					
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Weather Station Model Demo



- A - Temperature
- B - Present Weather
- C - Dew Point
- D - Low Cloud Type
- E - Pressure Change

- F - Pressure Tendency
- G - Wind Speed & Direction
- H - Barometric Pressure
- I - High Cloud Type
- J - Cloud Coverage