

**Mapping Drawing Isolines** Name

In this activity you will construct isolines on a field map

- Isolines are lines that connect points of equal value
- All points on the same isoline must have the same value
- Isolines never cross, touch or split
- Isolines are always closed curves even though the map might only show a portion of it (the rest is off the map)
- Isolines are gentle curved lines that do not have sharp corners
- Isolines usually are drawn in the same general direction as nearby isolines.

**Map A** Draw isolines with an interval of 1. Work neatly and carefully

13	15	16	16	18
12	13	14	15	17
11	12	13	14	15
10	12	13	15	16

**Map B** Draw isolines with an interval of 1. Work neatly and carefully

30	31	32	30	29
31	32	33	31	30
31	34	35	32	30
30	32	33	31	29
29	30	31	30	29

77 ● 75 ● 73 ● 71 ● 68 ● 65 ● 63 ●

78 ● 78 ● 77 ● 73 ● 69 ● 65 ● 62 ●

82 ● 80 ● 78 ● 74 ● 70 ● 68 ● 65 ●

81 ● 80 ● 77 ● 75 ● 70 ● 67 ● 64 ●

79 ● 77 ● 76 ● 73 ● 68 ● 66 ● 62 ●

75 ● 75 ● 72 ● 69 ● 65 ● 63 ● 61 ●

Map #1

Interval: 10 Hint: Do 130 First, then 120, 110, 100 etc

75	82	90	100	103	94	81
84	92	110	126	122	114	87
89	99	117	138	111	97	89
99	108	130	124	101	84	74
98	102	115	100	94	75	67

Map #2

Interval: 5

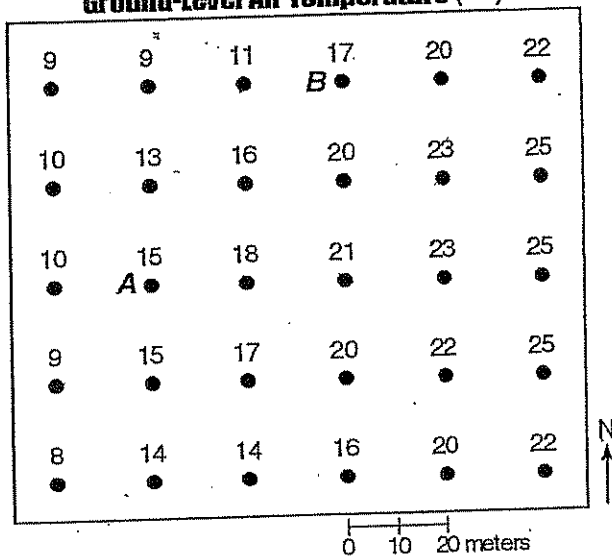
Hint: start with -10, then -5, 0, 5 etc

-7	-2	0	2	8	12	16	9
-9	-4	3	5	9	15	15	10
-11	-5	5	8	14	20	18	11
-10	-4	5	11	15	22	18	10
-5	0	6	10	14	15	13	8
-3	0	7	9	10	8	4	2
-5	-1	5	5	5	2	-1	-6

2

The field map below shows air temperature at specific locations in an area near a school in New York State. Part of this area is a blacktop parking lot. Accurate temperature readings were taken by Earth Science students at 10 a.m. on June 1. Two reference points, *A* and *B*, are shown.

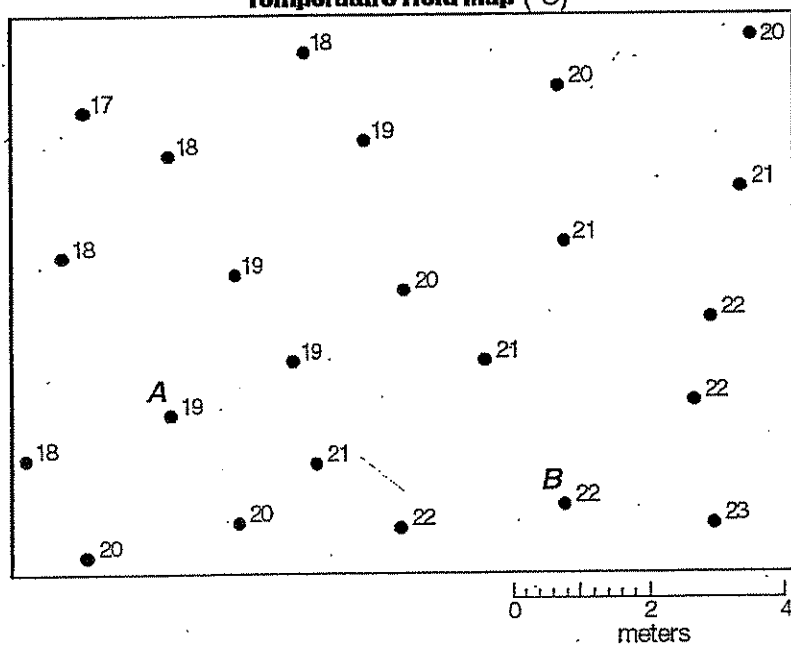
**Ground-Level Air Temperature ( $^{\circ}\text{C}$ )**



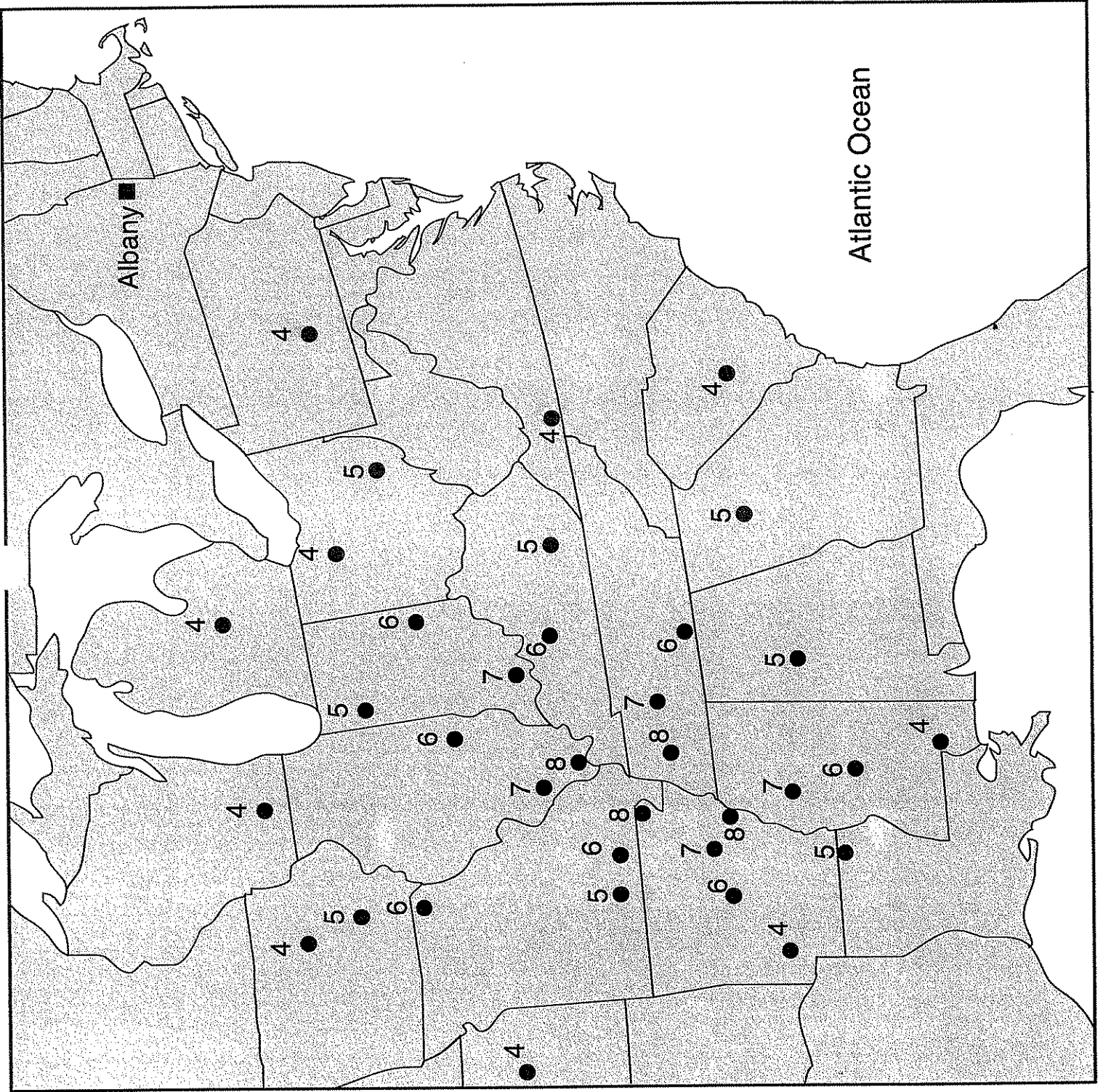
- 16) On the given field map, draw only the  $15^{\circ}\text{C}$  and the  $20^{\circ}\text{C}$  isotherms. [Isotherms must be extended to the edge of the map.]

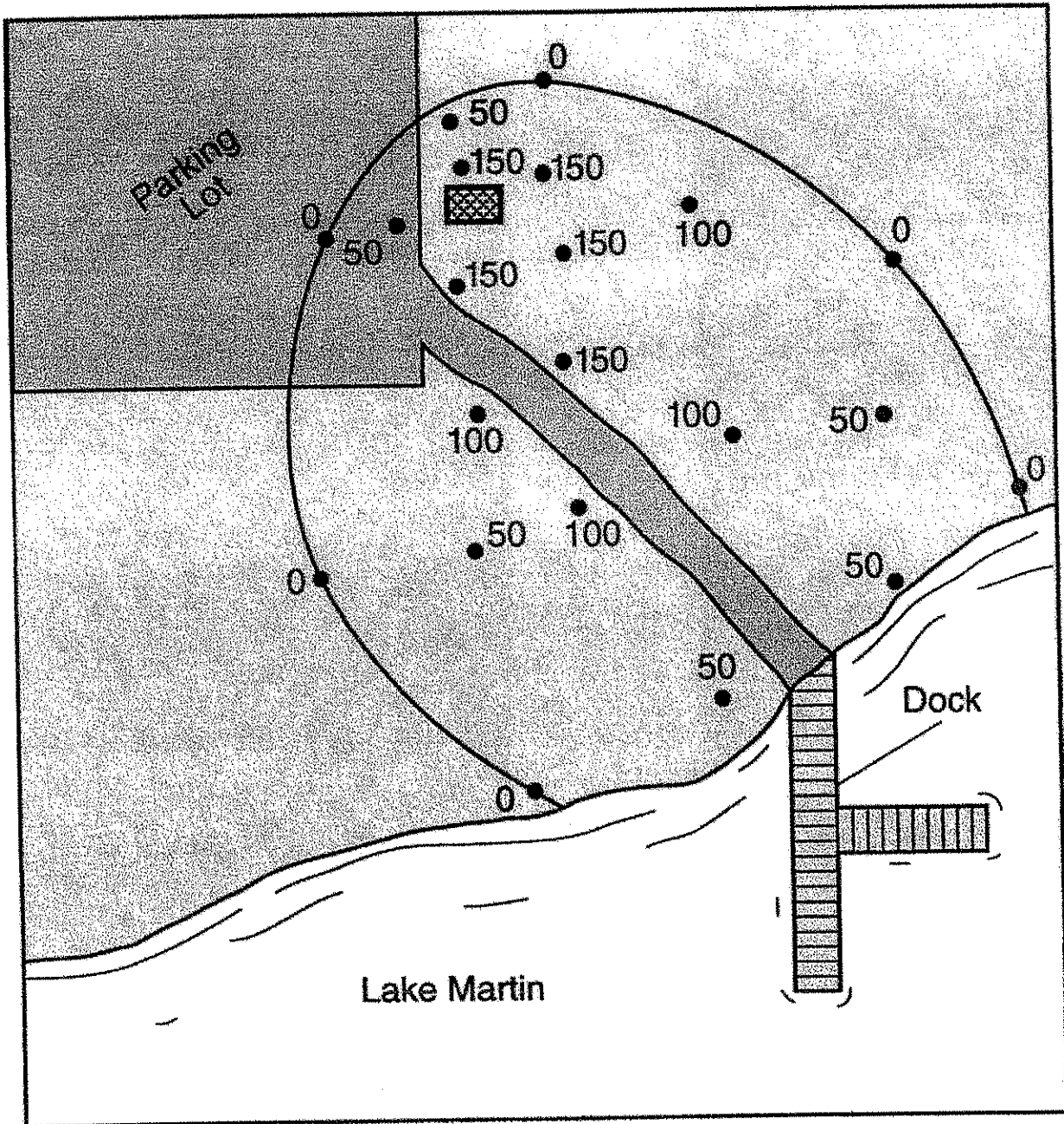
The temperature field map below shows temperature readings ( $^{\circ}\text{C}$ ) recorded by students in a science classroom. The readings were taken at the same time at floor level. Temperature readings for points *A* and *B* are labeled on the map.

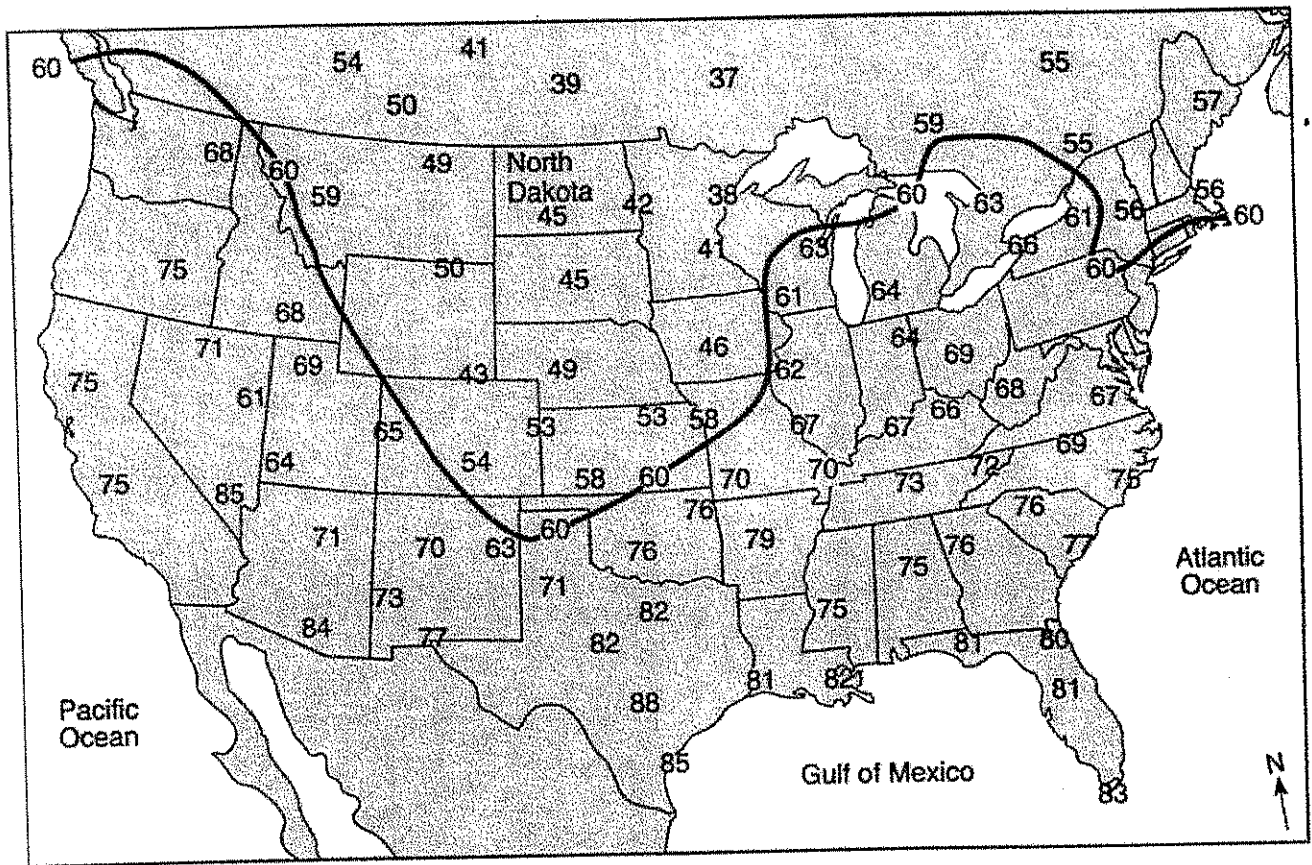
**Temperature Field Map ( $^{\circ}\text{C}$ )**

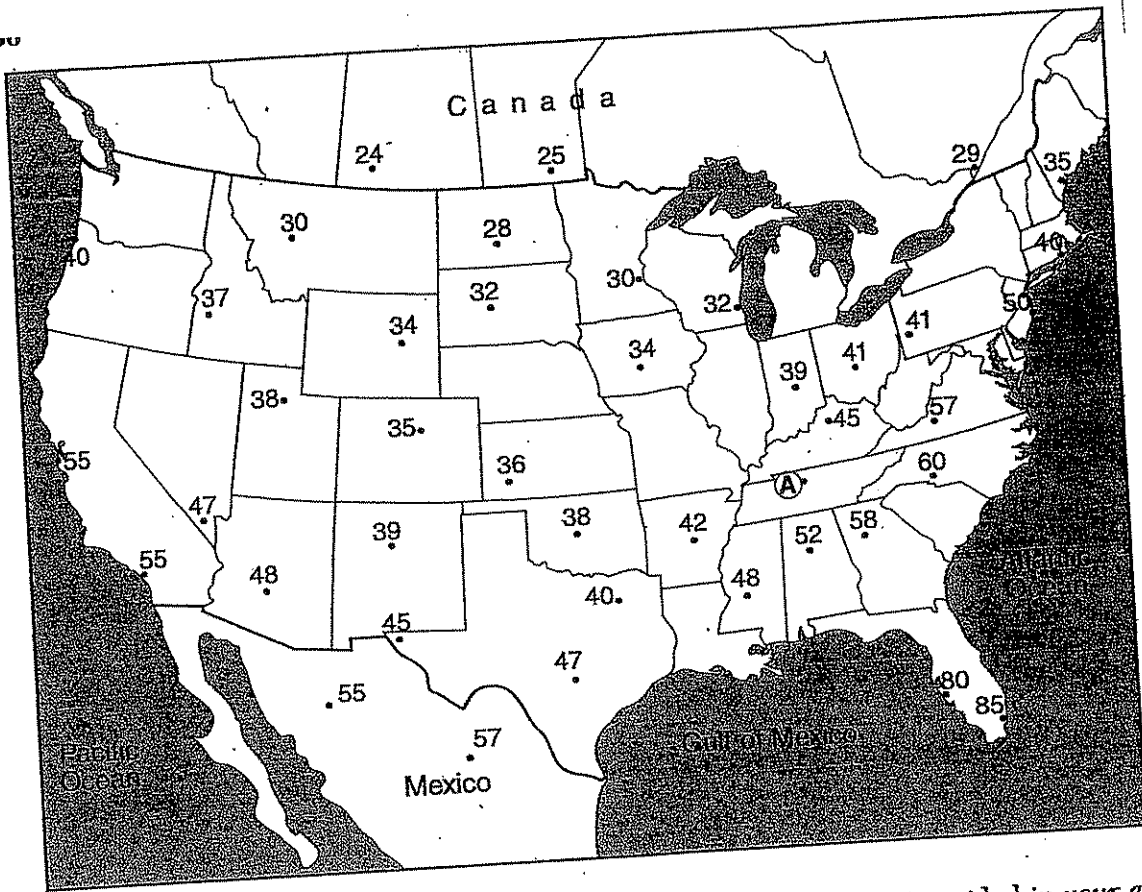


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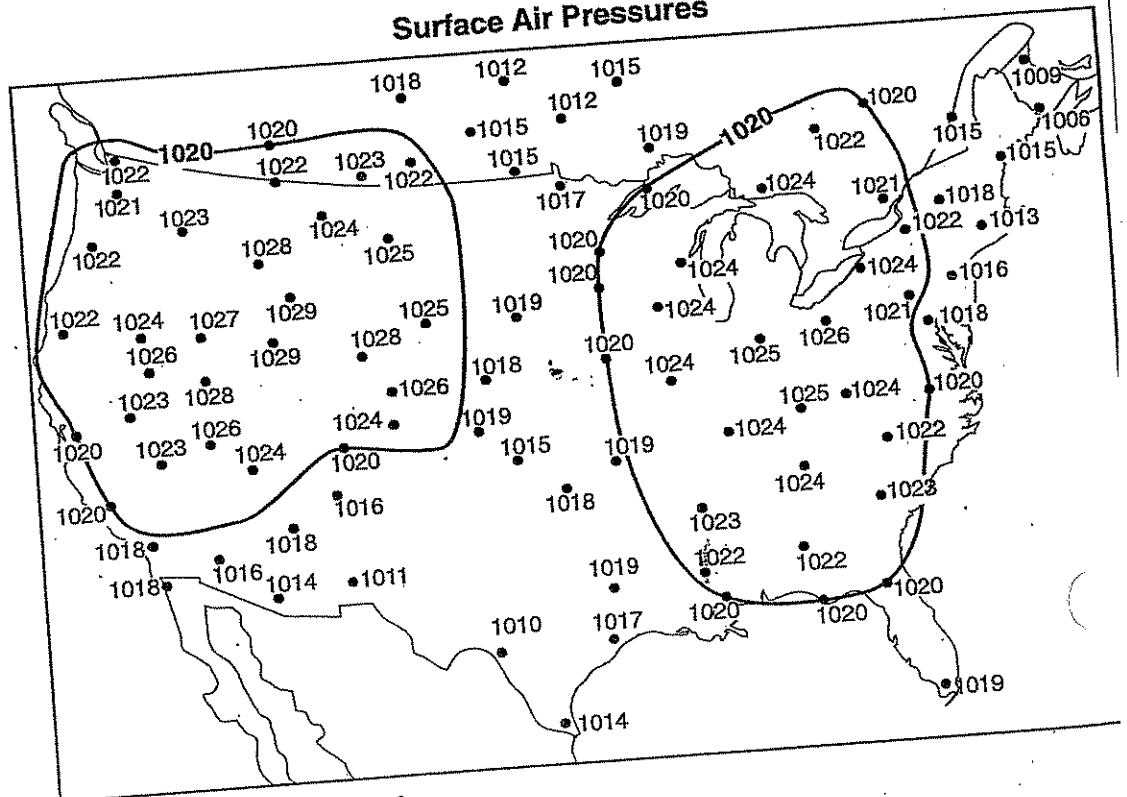


Base your answers to questions 56 and 57 on the temperature field map provided in your answer booklet. The map shows air temperatures, in degrees Fahrenheit, recorded at the same time at weather stations across North America. The air temperature at location A has been deliberately left blank.

56 On the map provided in your answer booklet, use smooth, curved solid lines to draw the 30°F, 40°F, and 50°F isotherms. [2]

57 What is the most probable air temperature at location A? [1]

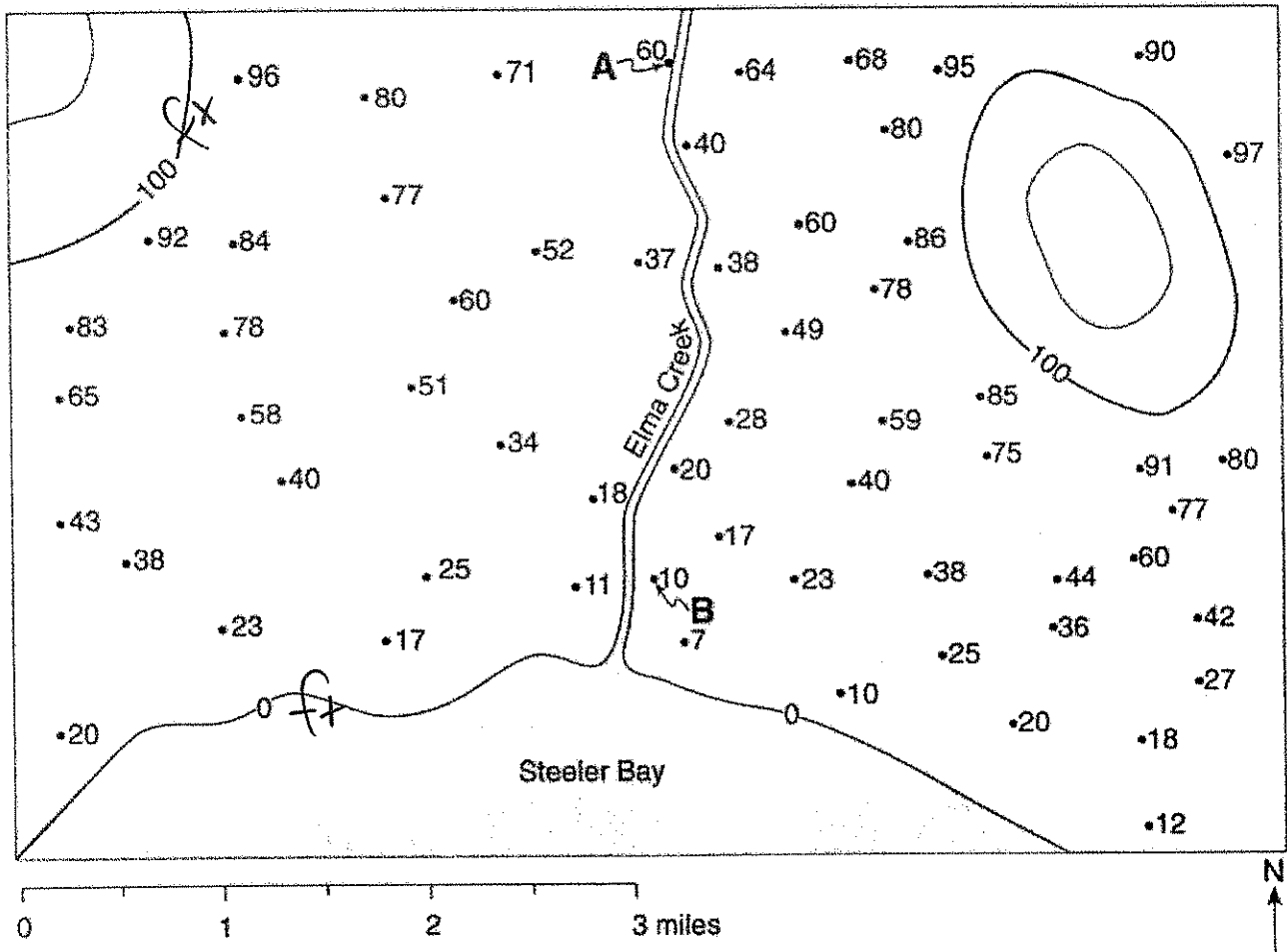
Surface Air Pressures



Draw  
1024 MB  
1028 MB  
ISOBARS

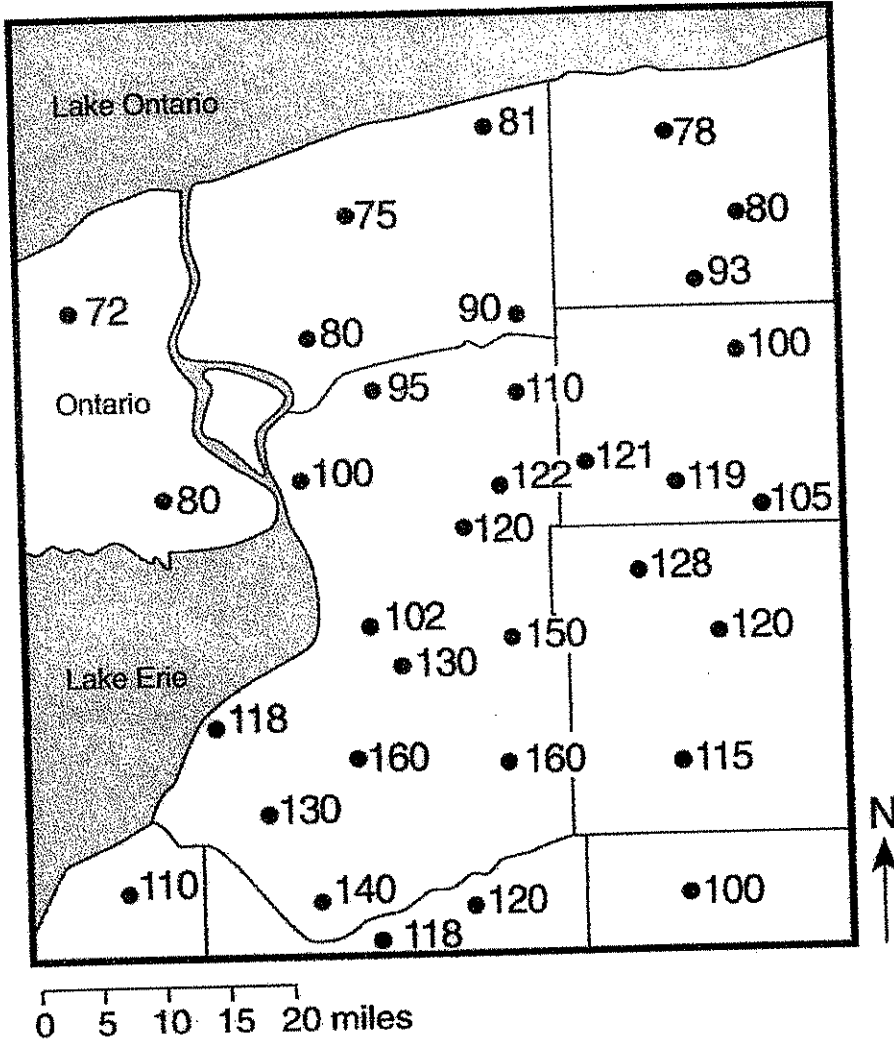


Draw 40 ft contour line  
 Calculate gradient between  
 Points A and B.



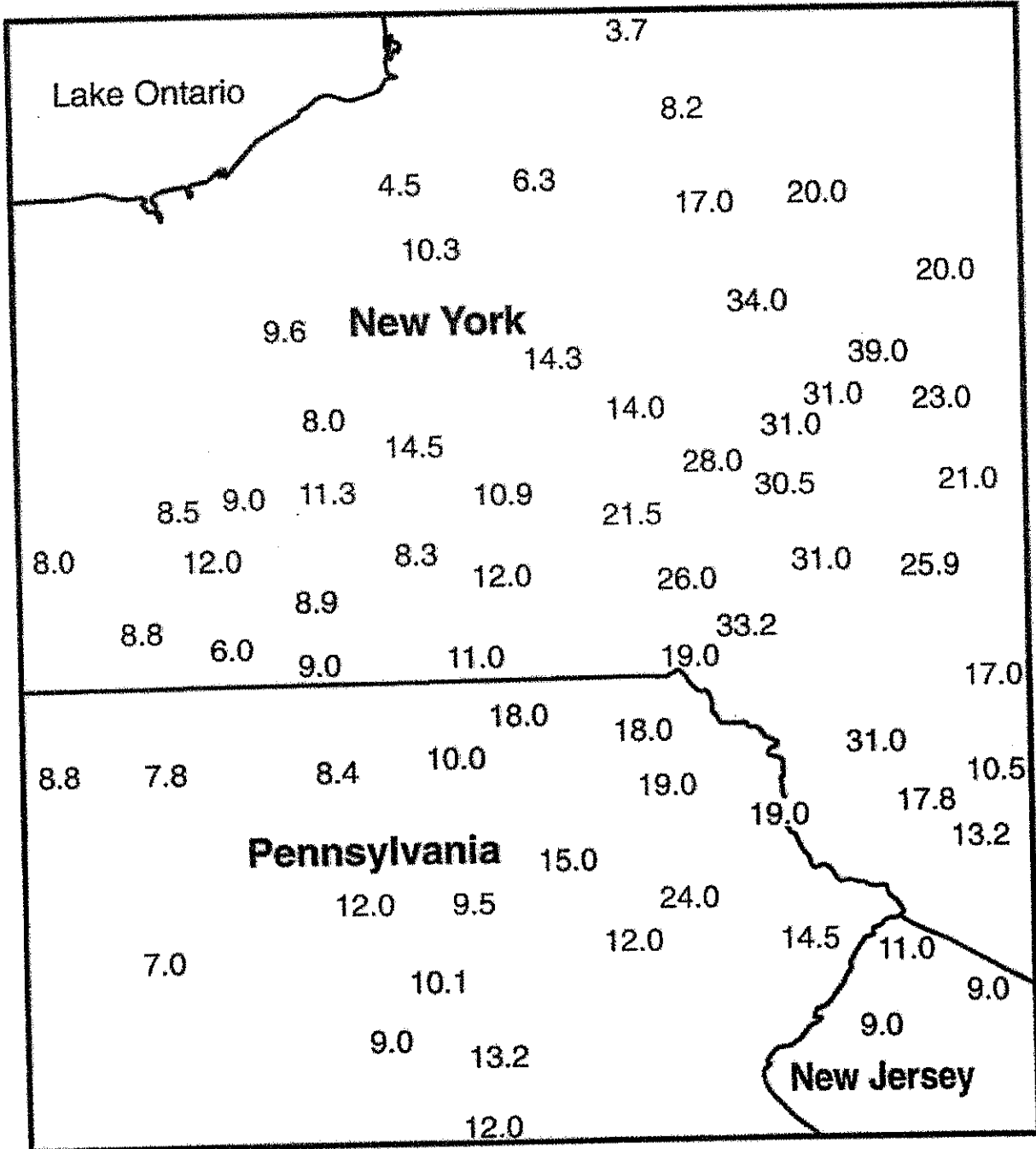
Draw 90 inch  
100 inch

### 1984-1985 Winter Season



Draw 30 inch  
isoline

**December Snowfall Amounts (inches)**



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