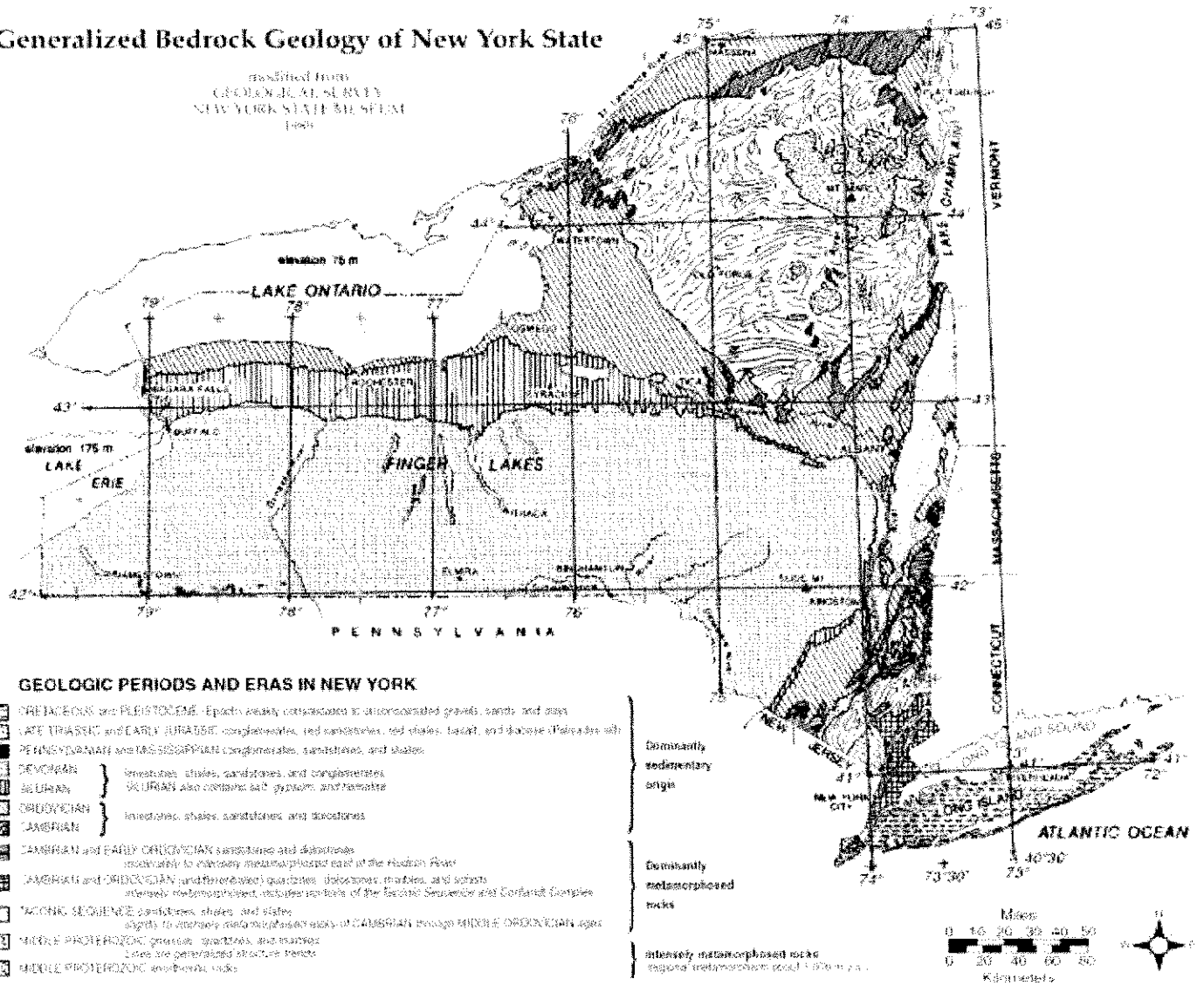


Generalized Bedrock Geology of New York State

modified from
GEOLOGICAL SURVEY
NEW YORK STATE MUSEUM
1969



Find the latitudes and longitudes of the following cities in degrees and minutes.

Utica _____ Jamestown _____
 Rochester _____ Watertown _____
 Plattsburgh _____ Slide Mt. _____

What city is at 42° 45'N, 73° 40'W? _____

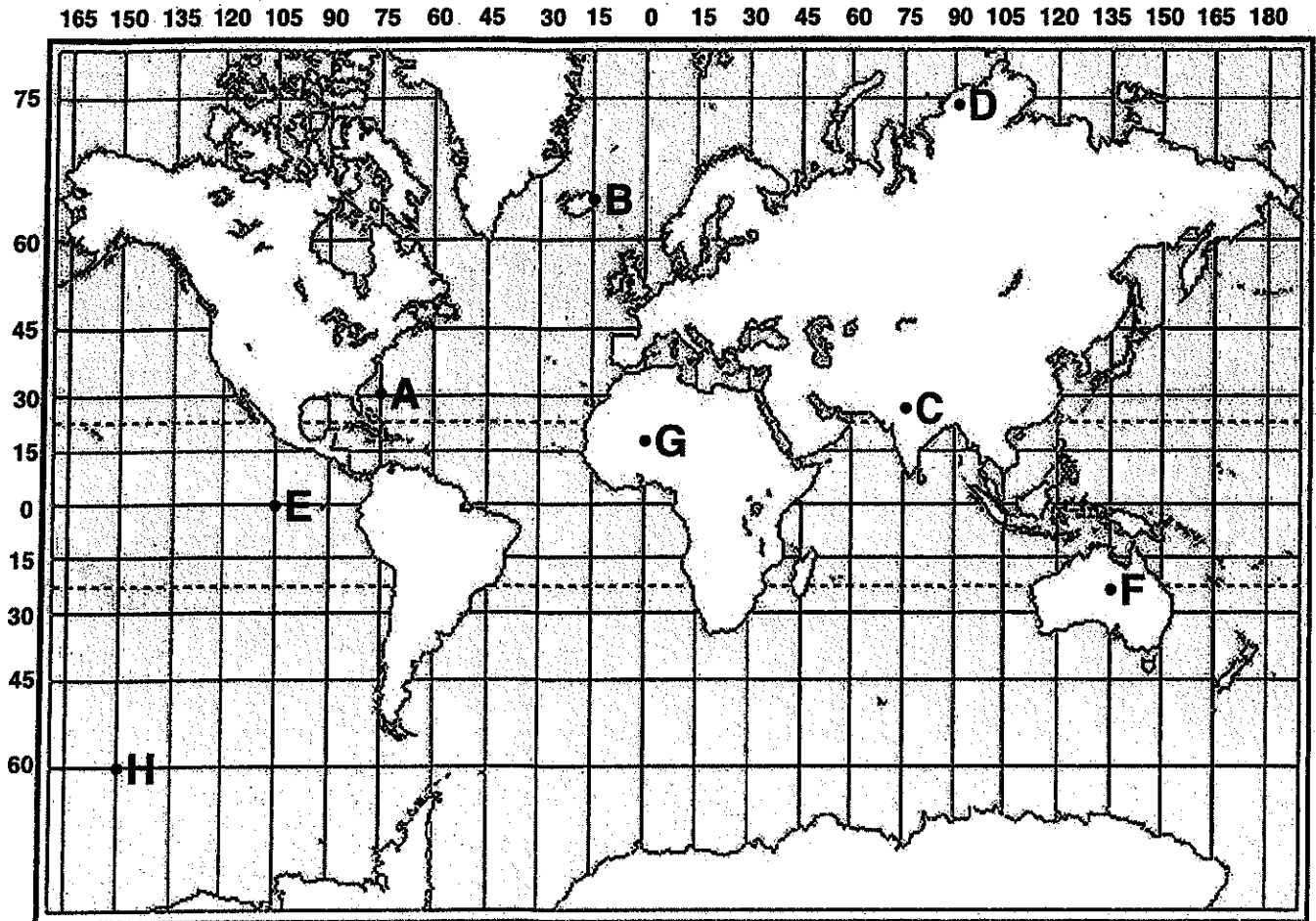
Remember:

one degree of latitude or longitude = _____ minutes('); one minute equals _____ seconds('')

Name: _____

Period: _____

Practice with Time Zones

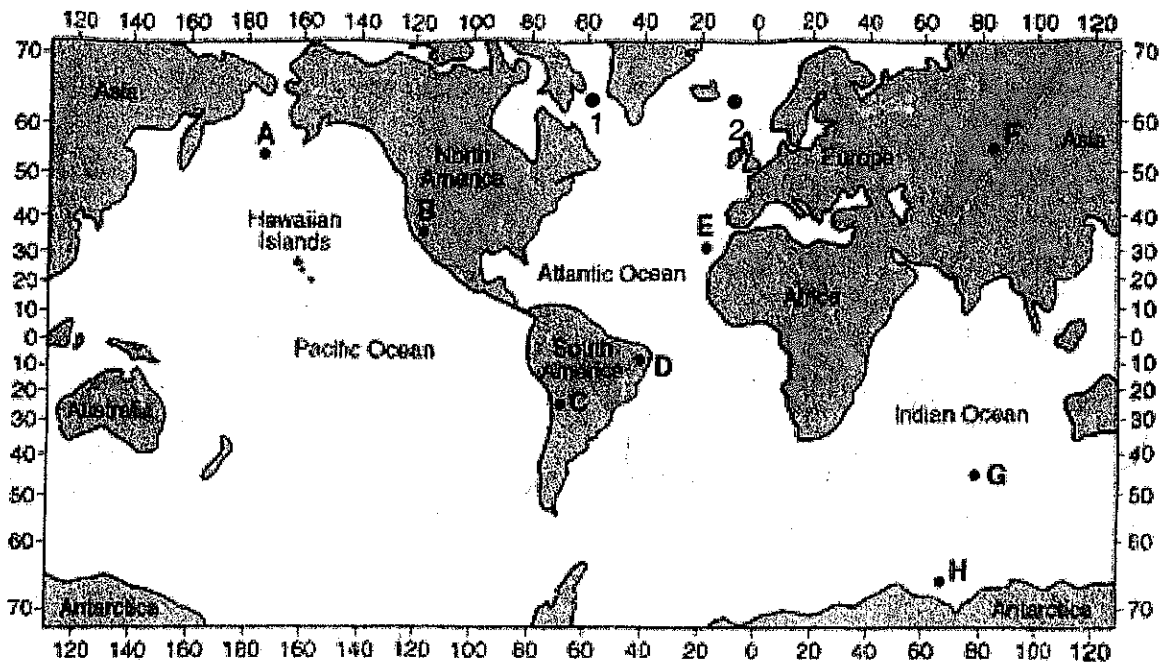


Key Ideas...

- ✓ 15 degrees of longitude is equal to **one hour** of time difference
- ✓ As you go to the **east**, time does **increase** (it gets later)
- ✓ As you go to the **west**, time becomes **less** (it gets earlier)

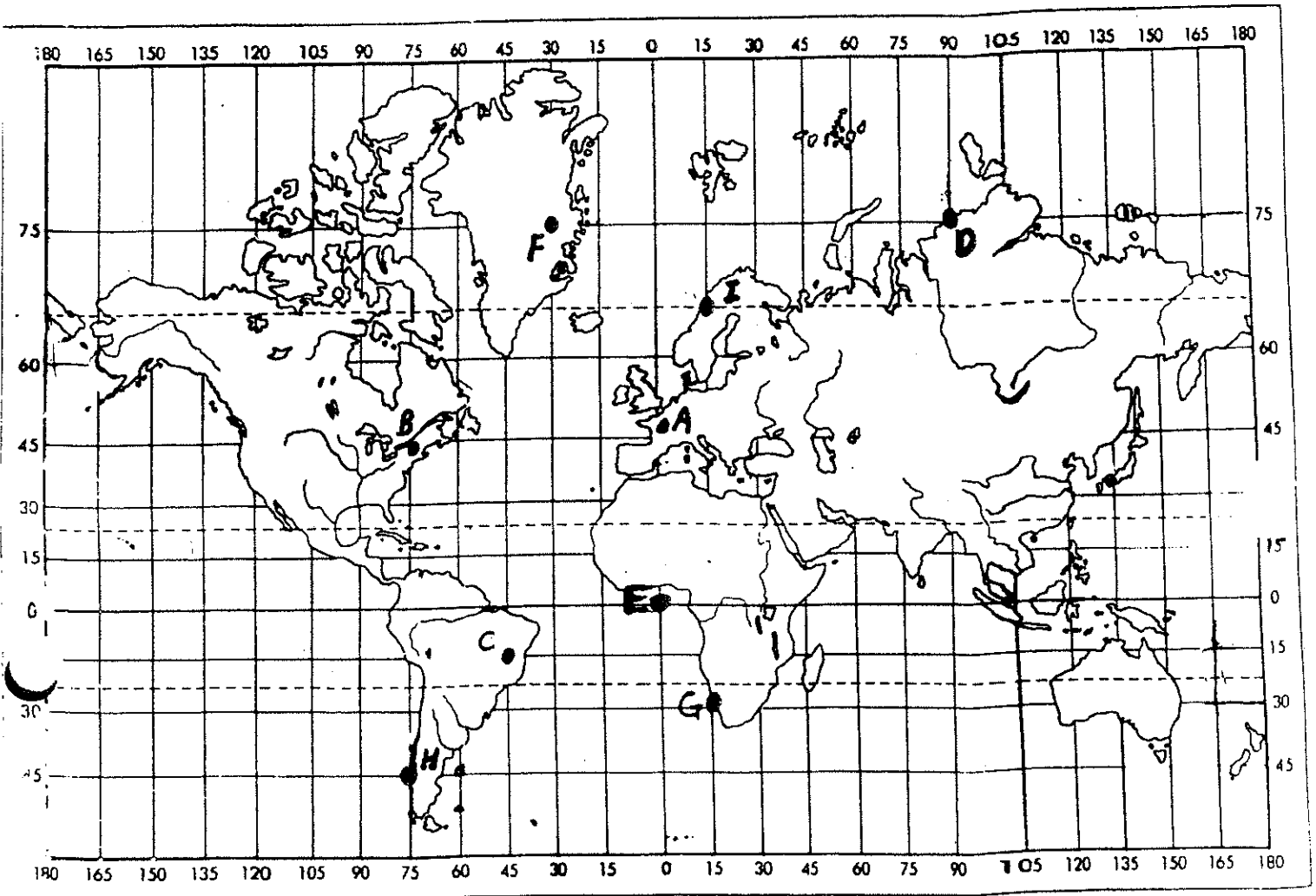
1. If it's 10am at location A, what time is it at location E? _____
2. If it's 2pm at location G, what time is it at location B? _____
3. If it's 8pm at location H, what time is it at location C? _____
4. If it's 7am at location F, what time is it at location D? _____
5. If it's 9am at location A, and 10am where you are, what is your longitude? _____
6. If it's 3pm at location G, and 6pm where you are, what is your longitude? _____
7. If it's 12pm at location H, and 11am where you are, what is your longitude? _____
8. If it's 6am at location F, and 3am where you are, what is your longitude? _____
9. If it's noon where you are, and 4pm at the Prime Meridian, what is your longitude? _____
10. If it's noon where you are, and 7am at the Prime Meridian, what is your longitude? _____

Latitude and Longitude



1. What is the latitude and longitude of point B? _____
2. What is the latitude and longitude of point C? _____
3. What is the latitude and longitude of point G? _____
4. How many degrees separates each time zone? _____
5. How many degrees of longitude are in each time zone? _____
6. As you go east, the time does _____
7. As you go west, the time gets _____
8. If its 6:00am at point 1, what time is it at point 2? _____
9. If the altitude of polaris is 42 degrees, what is your latitude? _____
10. If your latitude is 61 degrees North, what is your altitude of polaris? _____
11. What is the altitude of polaris if you latitude is 41 degrees south? _____
12. What latitude gets the most direct sun on June 21st? _____
13. What latitude gets the most direct sun on December 21st? _____
14. What latitude gets the most direct sun on March 21st? _____
15. What latitude gets the most direct sun on September 23rd? _____

DIRECTIONS: Prepare a chart showing latitude, longitude and time at each location. Assume that it is 2 P.M. at the Prime Meridian (GMT).



1. Which locations have time which is earlier than Greenwich? _____
 Why? _____
2. Why do locations on the same meridian have the same time? _____

3. If you travel *West* along one parallel, it becomes one hour earlier for every 15°. Is it possible to go back to yesterday? Explain your answer.
