

Name: _____

Date: _____ Period: _____

Lab Activity: Field Maps and Isolines

INTRODUCTION:

A field is a region in which there is a definite physical property that can be measured at every point. On Earth's surface there are hundreds of different measurable quantities. Some examples of measurable field quantities are; air pressure, temperature, elevation, rainfall amounts, and humidity.

During your course of study you will see many different types of field maps. In this lab we will be introduced to field maps using temperature data in the classroom.

OBJECTIVE:

You will use different forms of data to construct field [isoline] maps and be able to calculate gradient between two different locations.

VOCABULARY:

Field -

Isoline-

Isotherm -

Isobar -

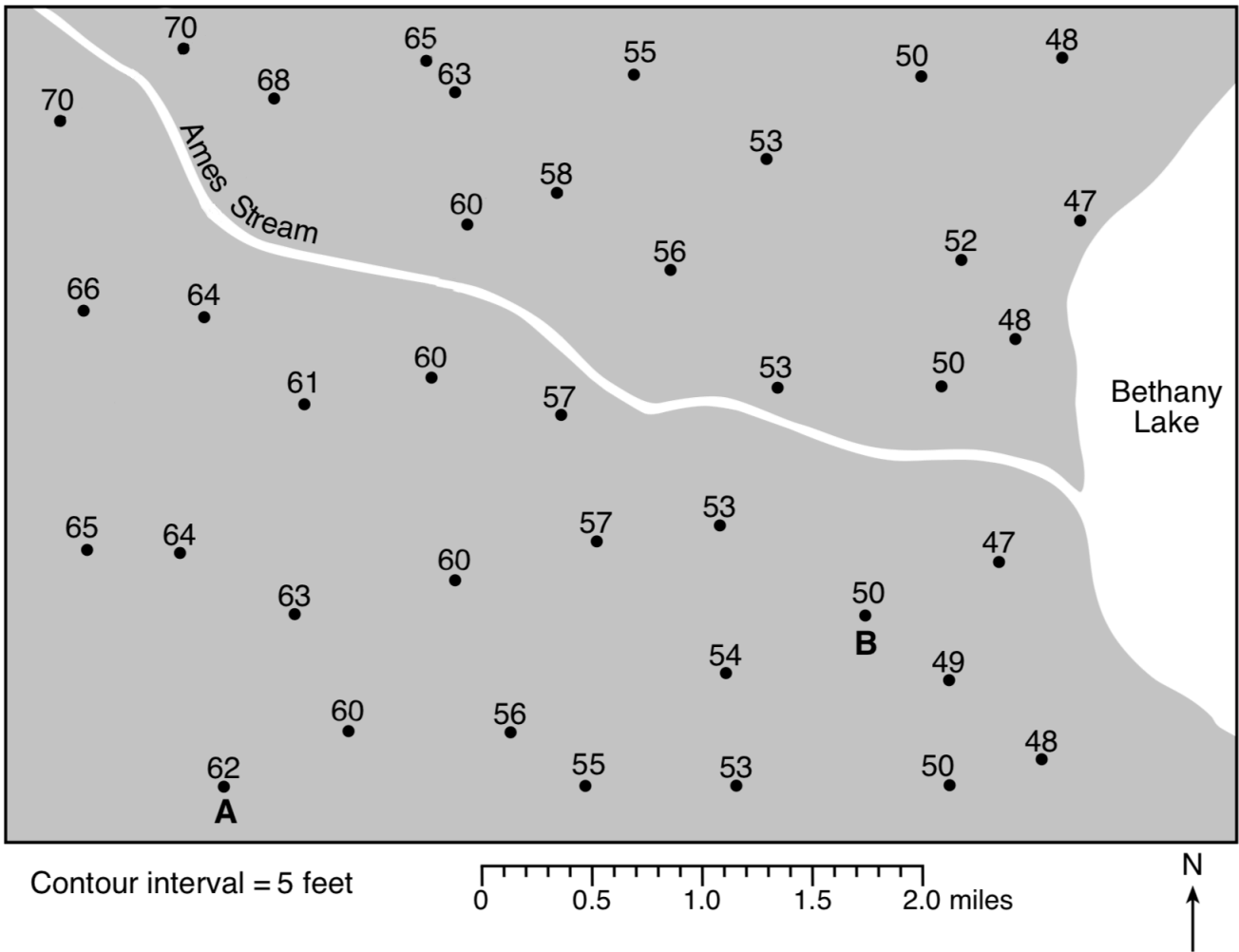
Isohyet -

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PROCEDURE A:

Using the Ames Stream Map below, draw in all the contour lines at 5 foot intervals on the map. Letter A and B will be used in the discussion questions. Be sure to extend the contour lines to the edges of the map.

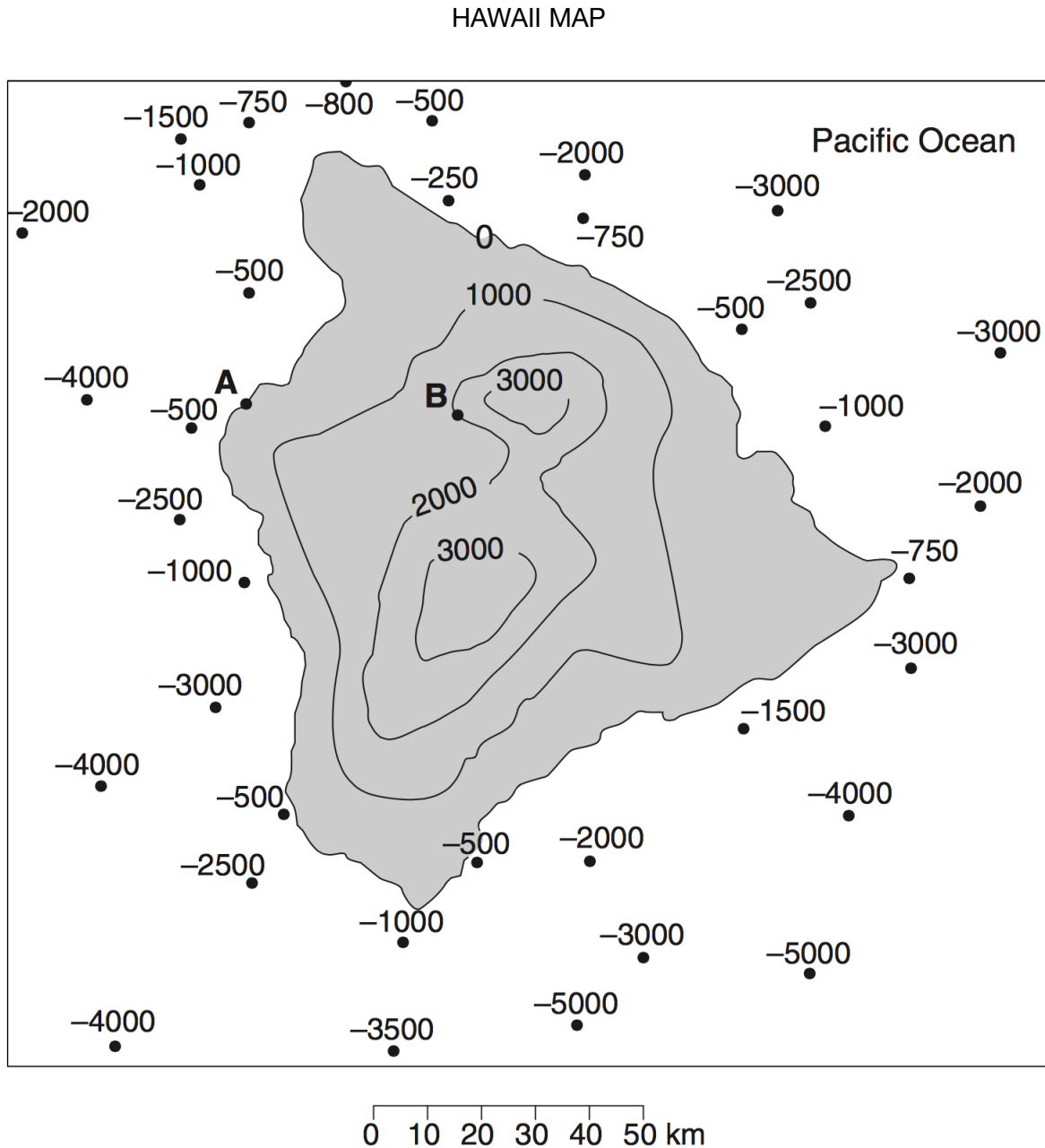
AMES STREAM MAP



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PROCEDURE B:

Using the Hawaii Map, construct ocean floor depths using 1000 meter intervals on the map. Letter A and B will be used in the discussion questions. Be sure to extend the contour lines to the edges of the map or form complete rings. Elevations are in meters.



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DISCUSSION QUESTIONS:

1. How many dimensions are represented on a standard isoline map?
2. Other than an elevation field map, name three other types of field maps.
3. List three rules that you should follow when constructing isolines.
4. Using the Ames Stream Map, calculate the gradient between points A and B.
5. Using the Hawaii Map, calculate the gradient between points A and B.

CONCLUSION: Describe, step by step, how we can map the field of a variable quantity?